



IN THE UNITED STATES PATENT AND TRADEMARK (PATENT AND TRADEMARK O	OFFICE
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Docket No	
Inticipated Classification of this application:	
Class Subclass v.8	
Prior application:	三°
xaminer: S. CANGIOLOSI	
Art Unit:	

Commissioner of Patents and Trademarks

wasningto	n, D.C. 20231					
	FILING UNDER 37 CFR 1.60					
WARNING:	A c-i-p (continuation-in-part) cannot be filed under 37 CFR 1.60.					
WARNING:	Filing under 37 CFR 1.60 is permitted only if filed by the same or less than all the inventors named in the prior application.					
WARNING:	The filing of an application as the United States stage of an International Application requires an oath or declaration. 37 CFR 1.61(a)(4).					
WARNING:	IING: The claims of this new application may be finally rejected in the first Office action where all claims of the new application are drawn to the same invention claimed in the earlier application and would have been properly finally rejected on the grounds or art of record in the next Office action if they had been entered in the earlier application. MPEP§ 706.07(b).					
This is a r	request for filing a					
\boxtimes (Continuation					
	Divisional					
application (under 37 CFR 1.60, of pending prior application					
serial no	08/872,082 filed on $June 10. 1997$					
	(date)					
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S METHOD OF SECURE SERVER CONTROL OF LOCAL MEDIA VIA A TRIGGER THROUGH A NETWORK FOR LOCAL ACCESS OF ENCRYPTED DATA ON AN INTERNET WEBPAGE

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this 37 CFR 1.60 request and the documents referred to as attached therein are being deposited with the United States Postal Service on this date November 12, 1999 in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR 1.10, Mailing Label Number EM4105421656 addressed to the: Commissioner of Patents and Trademarks, Washington, D.C. 20231

Milton S. Gerstein (Type or print name of person mailing paper)

(Signature of person mailing paper)

NOTE: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. (37 CFR 1.10(b).

(37 CFR 1.60 [4-3]—page 1 of 7)

2.

NOTE: 37 CFR 1.60 permits the omission of a declaration only if the prior application was complete as set forth in 37 CFR 1.51(a), namely, the prior application comprised at least (1) a specification, including a claim or claims; (2) a declaration; (3) drawings when necessary; and (4) the prescribed filing fee. Accordingly, as presently worded, 37 CFR 1.60 does not permit this procedure to be used where the prior application is pending but only the processing and retention fee required by 37 CFR 1.21(I) is paid or where the declaration was not

1.

Сору	of Prior Application as Filed Which is Attached
vi a	nder 37 CFR 1.60 practice signing and execution of the application by the applicant may be omitted pro- ided the copy is supplied by and accompanied by a statement by the applicant or his or her attorney or gent that the application papers comprise a true copy of the prior application as filed and that no amend- tents referred to in the declaration filed to complete the prior application introduced new matter therein.
NOTE: T	his statement need not be verified if made by an attorney registered to practice before the PTO. (37 CFR 60(b)).
K	I hereby verify that the attached papers are a true copy of what is shown in my records to be the above identified prior application, including the oath or declaration originally filed (37 CFR 1.60)
The cop	y of the papers of prior application as filed which are attached are as follows:
	107 page(s) of specification
区	page(s) of claims
X	page(s) of abstract
X	10 sheet(s) of drawing
	(Also complete 5 below if drawings are to be transferred)
	3 pages of declaration and power of attorney
	If the copy of the declaration being filed does not show applicant's signature indicate thereon that it was signed and complete the following:
	in accordance with the indication required by 37 CFR 60(b) my records reflect that the original signed declaration showing applicant's signature was filed on
	the amendment referred to in the declaration filed to complete the prior application and I hereby state, in accordance with the requirements of 37 CFR 1.60(b), that this amendment did not introduce new matter therein.
Amen	dments
WARNING	"The claim of a new application may be finally rejected in the first Office action in those situations where (1) the new application is a continuing application of, or a substitute for, an earlier application, and (2) all the claims of the new application (a) are drawn to the same invention claimed in the earlier application, and (b) would have been properly finally rejected on the grounds or art of record in the next Office action if they had been entered in the earlier application." MPEP§ 706.07(b).
Ď	Cancel in this application original claims $2-8$ of the prior application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
X	A preliminary amendment is enclosed. (Claims added by this amendment have

the highest numbered original claim in the prior application.) NOTE: Only amendments reducing the number of claims or adding a reference to the prior application (Rule 1.78(a)) will be entered before calculating the filing fee and granting the filing date. 37 CFR 1.60(b).

been properly numbered consecutively beginning with the number next following

"When filing under Rule 1.60 retain at least one original claim from the patent application to assure a complete application." Notice of March 3, 1986 (1064 O.G. 37-38).

3. Fee Calculation

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			(37 CFR 1.60 F4	I-3]page 3 of 7)

(37 CFR 1.60 [4-3]—page 3 of 7)

drawings will be necessary. If corrections are necessary, they should be made to the original drawings. Either a good copy of the corrected drawings or the corrected original can then be submitted after the Notice of Allowability is mailed. "The Notice of November 25, 1985 (1061 O.G. 12) further clarifies the submission of drawing practice by pointing out that the copies that are submitted to the office must be on strong, white, smooth and non-shiny paper and also points out that drawings for patent applications do not need to be submitted on bristol board.

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			(37 CFR 1	.60 [4-3]—page 5 of 7)

13.	Pow	er o	f Attorney	
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		a.	[X] The power appears in the original papers	s in the prior application
		b.	Since the power does not appear in the power in the prior application is enclosed	-
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		d.	Address all future communications to	
			Hamman & Benn 10 S. LaSalle Street Suite 3300 Chicago, Illinois 60603	1
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being abandoned)

NOTE: "A registered attorney or agent acting under the provisions of § 1.34(a), or of record, may also expressly

abandon a prior application as of the filing date granted to a continuing application when filing such a con-

Please abandon the prior application at a time while the prior application is pending or when the petition for extension of time or to revive in that application go, (37 CFR 1.60 [4-3]—page 6 of 7)

tinuing application."37 CFR 1.138.

is granted and when this application is granted a filing date so as to make this application copending with said prior application.

I hereby declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

MILLON S. Gerstein						
•	Type or print name of person signing					
November 12, 1999	Mitton & Tenson					
Date Hamman & Benn	Signature					
10 S. LaSalle St.						
P.O. Address of Signatory	☐ Inventor					
Suite 3300	Assignee of complete interest					
Chicago, 111. 60603	Person authorized to sign on behalf of assignee					
Tel. No.: (312) 372-2920	X Attorney or agent of record					
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:

KENNETH MAGES, ET AL.

TITLE:

METHOD OF SECURE SERVER CONTROL OF LOCAL ...

SERIAL NUMBER:

FILING DATE:

GROUP:

ART UNIT

EXAMINER:

To:

The Commissioner of Patents and Trademarks Washington, D. C. 20231

PRELIMINARY AMENDMENT

Sir:

In advance of the first office action, please amend the above-identified application as follows.

IN THE SPECIFICATION:

Page 1, line 1, in the title, after "METHOD", insert
-- AND APPARATUS --;

IN THE CLAIMS:

Cancel claim 1, and add the following new claims.

- **CLAIM 9.** A method of transmitting data invoking a crippled file on a storage medium containing video and/or audio over a network, comprising:
- (a) crippling the video and/or audio files on the storage medium, whereupon the files are rendered unusable without an uncrippling trigger;

- (b) storing uncrippling trigger data comprising selected information at a host computer means for use in uncrippling the data files on the storage medium;
- (c) transmitting the uncrippling trigger data from the host computer means through a network to the end-user's computer means with which the storage medium having the crippled data files thereon is associated;
- (d) receiving the uncrippling trigger data at the enduser's computer means in the volatile RAM of the end-user's computer means; and
- (e) substantially instantly uncrippling the crippled data files on the storage medium by means of combining in RAM the uncrippling trigger data sent by the host computer means in said step (d) with the crippled data on the storage medium; and
- step (e) being carried out immediately after said step (d), and, immediately after said step (e), playing the video and/or audio on a player means;

said step (e) comprising:

- directing the incoming uncrippling trigger
 data to RAM for temporary storage therein;
- 2) combining in RAM said uncrippling trigger data with said crippled video and/or audio files; and
- 3) said step of playing being performed while said uncrippling data is in said RAM for immediate playback of said video and/or audio files on said storage medium.
- CLAIM 10. A method of transmitting data invoking a crippled file on a storage medium containing video and/or audio data over the Internet, comprising:

- (a) storing uncrippling trigger data at a host computer for use in uncrippling video/audio files on a storage medium;
- (b) transmitting the uncrippling trigger data from the host computer through the Internet to the end-user's computer with which the storage medium having the crippled files thereon is associated:
- (c) receiving the uncrippling trigger data at the enduser's computer over the Internet;
- (d) immediately after said step (c), uncrippling the crippled data files on the storage medium by means of the uncrippling trigger data sent by the host computer in said step (b);
- (e) immediately after said step (d), playing the video and/or audio on a player;

said step (c) comprising directing the incoming uncrippling trigger data to volatile RAM for temporary storage therein, combining in RAM said trigger data with said crippled file;

said step (d) being performed while said uncrippling data is in said volatile RAM for immediate playback of said video and/or audio files by said step (e).

CLAIM 11. In a storage device, for use with a computer, which storage device comprises memory means for storing digital data thereon, the improvement comprising:

said memory means comprising crippled data files representative of video and/or audio;

an end-user's computer for use in playing back the crippled data files on the storage device;

a host computer having a memory means for storing uncrippling data comprising selected data thereon for said crippled data files on said storage device;

a network system linking said end-user's computer with said host computer, whereupon said host computer's sending said uncrippling data stored in said memory means thereof to said end-user's computer, said crippled data files on said storage device, associated with said end-user's computer is uncrippled in the RAM of the end-users's computer and rendered playable;

volatile memory means for receiving said uncrippling triggering data; means for immediately joining said uncrippling triggering data and said data files of said storage device in said RAM, for immediate playback of said data files;

said end-user's computer further comprising player means for playing back the uncrippled data files.

- CLAIM 12. The storage device for use with a computer according to claim 11, said wherein said storage device comprises CD-ROM means.
- **CLAIM 13.** A method of transmitting data invoking a crippled file on a memory-storage medium containing video and/or audio over the Internet, comprising:
- (a) storing encoded uncrippling trigger data at a host computer for use in uncrippling video/audio files on a memorystorage medium;
- (b) transmitting the encoded uncrippling trigger data from the host computer through the Internet to the end-user's computer with which the memory-storage medium having the crip-

pled files thereon is associated;

- (c) receiving the encoded uncrippling trigger data at the end-user's computer over the Internet; and
- (d) decoding the encoded uncrippling trigger data at the end-user's computer; and
- (e) uncrippling the crippled data files on the memorystorage medium by means of the uncrippling trigger data sent by the host computer in said step (b).
- CLAIM 14. The method of transmitting data invoking a crippled file on a memory-storage medium containing video and/or audio over the Internet, according to Claim 13, wherein before said step (a), removing the header data from the video/audio files; said step (d) comprising restoring the header data representing the header data removed from the video/audio files.
- CLAIM 15. The method of transmitting data invoking a crippled file on a memory-storage medium containing video and/or audio over the Internet, according to Claim 13, wherein after said step (e), playing the video and/or audio on a player.
- CLAIM 16. The method of transmitting data invoking a crippled file on a memory-storage medium containing video and/or audio over the Internet, according to Claim 13, wherein said step (a) comprises storing at least one of the following: Video/audio header data; data for removing the hidden-status flag for the video/audio data files on the memory-storage medium; data for unzipping the zipped data files of the video/audio data files on memory-storage medium; data for changing the extension of the video/audio data files.

CLAIM 17. In a memory-storage medium for use with a computer, which memory-storage medium comprises memory means for storing data thereon, the improvement comprising:

said memory means containing files representative of video and/or audio;

said files being crippled, whereby, without uncrippling trigger data, said data files are not capable of being played by a computer;

said crippled files missing necessary data that allows for the playback thereof; and

separate and independently-stored uncrippling trigger data, said trigger data comprising said missing necessary data; and

another memory means separate and independent from said memory means containing files representative of video and/or audio, said trigger data being stored on said another memory means.

- CLAIM 18 A method of transmitting data invoking a crippled file on a storage medium containing video and/or audio data over a network, comprising:
- (a) storing uncrippling trigger data at a host computer for use in uncrippling video/audio files on a storage medium;
- (b) transmitting the uncrippling trigger data from the host computer through a network to the end-user's computer with which the storage medium having the crippled files thereon is associated;

- (c) receiving the uncrippling trigger data at the enduser's computer over the network;
- (d) after said step (c), uncrippling the crippled data files on the storage medium by means of the uncrippling trigger data sent by the host computer in said step (b);
- (e) before said step (a), removing a necessary portion of said video/audio files without which said video/audio files are rendered unusable, said necessary portion constituting said trigger data of said step (a).

REMARKS

The present amendment has been submitted in order to add new claims.

Respectfully submitted,

Milton S. Gerstein Reg. No. 27,891

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EXPRESS MAIL LABEL NO: EG944548064US

METHOD OF SECURE SERVER CONTROL OF LOCAL MEDIA VIA A TRIGGER THROUGH A NETWORK FOR INSTANT LOCAL ACCESS OF ENCRYPTED DATA ON AN INTERNET WEBPAGE

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CROSS REFERENCE TO RELATED APPLICATION

The present application is a continuation-in-part of application serial number 08/792,092, filed on January 31, 1997, which is a continuation-in-part of application serial number 08/568,631, filed on December 7, 1995, and a continuation-in-part of application serial number 08/756,162, filed on November 25, 1996.

BACKGROUND OF THE INVENTION

The present invention is directed to a method of transmitting "triggering data" over a network to cause video and/or audio information data on a Internet Web Page

The Internet is a conglomeration of computer networks that are linked together. Each network of the Internet may have one or more servers, and an operating system that may be different from that of others in the Internet. To link one network to another, and in order to overcome these operating differences between computer networks, the Internet system utilizes hardware and software devices called: bridges, routers, and gateways, all of

which adapt the information being sent on one network to the operating and protocol requirements of the receiving network. For example, a gateway will connect, or "splice" a network operating on the Novell protocol to a network that operates on a DECnet or SNA protocol.

There are currently more than 10,000 computer networks that are linked together, worldwide, which together constitute the "Internet". Because they do not all operate on the same operating system, and because of different protocols, the data sent from one host computer of one network to a receiving computer of another network - which may be many thousands of miles away from the host computer - may take a relatively long time, since the gateways, bridges and routers must conform or adapt the protocol of the sending host computer to the receiving computer's protocol.

In addition to the time-delays associated with protocol variances, the Internet when connecting to an end-user via Plain Old Telephone Service (POTS), has a maximum data-transmission capacity of 3.6 kbytes per second, which is not enough for sending video images in real time.

The Internet system utilizes two types of file-transfer protocols (FTP) for copying a file from a host computer to the receiving computer: ASCII and binary. An ASCII file is a text file, while every other kind of file is binary. ASCII files are transmitted in seven-digit ASCII codes, while the binary files are transmitted in binary code. Because all data stored in computer memory is stored in binary format, when one sends a file in the Internet, it is sent in binary format. However, as discussed above, owing to the data-transmission constraints imposed by the Internet system because of the differing operating systems, and a multitude of gateways, routers, and bridges, the file data must be sent out in packets of a size no greater than 1536 bytes.

Since the size of just a thirty-second video may be as great as 2.5 megabytes, it may take up to one-half hour or more to send a thirty-second video over the Internet from a host computer to a receiving computer. Presently, there are compression techniques that compress the files in order to reduce this playback-time, which data is decompressed at the receiving computer. An example of such a system is VDOLive, manufactured by VDOnet Corp. of Santa Clara, California. However, these compression-systems still send the data in binary format, requiring packet-data sizes of no greater than 1536 bytes. Thus, even with these compression-systems, the length of time to receive a thirty-second video over the Internet after being buffered in the user's computer is near real time, but is unstable, choppy and drops as much as 96% of the video data over a conventional phone line.

In the Internet, there is an electronic-mail delivery system called E-mail. The E-mail system utilizes addresses to direct a message to the recipient, with each address having a mailbox code and a daemon, with the mail box and daemon being separated by the symbol @. In the E-mail delivery system, all of the messages or "mail" are routed through selected routers and gateways, until it reaches what may be called a "post office" that services recipient to whom the electronic mail is to be delivered. "post office" is a local server. The need for these local "post is because there is every reason to assume that the offices" recipient-computer, to which the mail is being sent, is either not powered up, or is performing a different task. Since computers in the Internet are not multi-tasking machines, for example, computers running on the DOS operating system, such a computer be engaged in performing a task, it is not possible for it to receive the E-mail data at that time. the local "post office" or server stores the message until such a time as it may be delivered to the end-user to whom it is intended.

In the E-mail system, there has really been only one format standard for Internet messages. A variation has been the MIME version, which stands for Multipurpose Internet Mail Extensions, which defines a new header-field, which is intended for use to send non-text messages, such as multimedia messages seven-digit include audio or images, by encoding the binary into ASCII code. Before MIME, the limitation of E-mail systems was the fact that it would limit the contents of electronic mail messages to relatively short lines of seven-bit ASCII. This has forced users to convert any non-textual data that they may wish to send into seven-bit bytes representable as printable ASCII characters before invoking a local mail UA (User Agent, a program with which human users send and receive mail). Examples of such encodings currently used in the Internet include pure hexadecimal, uuencodthe 3-in-4 base 64 scheme specified in RFC 1421, the Andrew Toolkit Representation [ATK], and many others. Even though a user's UA may not have the capability of dealing with the nontextual body part, the user might have some mechanism external to the UA that can extract useful information from the body part. Moreover, it does not allow for the fact that the message may eventually be gatewayed back into an X.400 message handling system (i.e., the X.400 message is "tunneled" through Internet mail), where the non-textual information would definitely become useful again. With MIME, video and/or audio data may be sent using the E-mail system. MIME uses a number of header-fields, such as "Content-Type" header field, which can be used to specify the type and subtype of data in the body of a message and to fully specify the native representation (encoding) of such data; "text" Content-Type value header field, which an be used to represent textual information in a number of character sets formatted text description languages in a standardized manner;

"multi-part" Content-Type value, which can be used to combine several body parts, possibly of differing types of data, into a single message; "application" Content-Type value, which an be used to transmit application data or binary data, and hence, among other users, to implement an electronic mail file transfer service; "message" Content-Type value, for encapsulating another mail message; "image" Content-Type value, for transmitting still image (picture) data; "audio" Content-Type value, for transmitting audio or voice data; "video" Content-Type value, for transmitting video or moving image data, possibly with audio as part of the composite video data format; "Content-Transfer-Encoding" header field, which can be used to specify an auxiliary encoding that was applied to the data in order to allow it to pass through mail transport mechanisms which may have data or character limitations. Two additional header fields may be used to further describe the data in a message body: The "Content-ID" and "Content Description" header fields.

However, there are considerable drawbacks and deficiencies in transmitting video images and/or audio data over the Internet using E-mail's MIME. Firstly, there is often considerable time delays, such that it may take up to ten or more minutes to send a thirty-second video clip over the E-mail system. In times of high-traffic usage, the delay may even be more than ten minutes. Secondly, the video image or audio data cannot be viewed or listened to by the end-user, or recipient, until all of the data of the entire video or audio file has been received by the receiving computer, which, also, adds a considerable time lag to the actual viewing or listening. Thirdly, the end-user or recipient computer must have the necessary E-mail and MIME software for decoding the data. Fourthly, since MIME is an E-mail protocol system, the data is transmitted via the E-mail system, meaning that it is routed through one or more post offices and servers,

which delay the transmission of the data, and which require that no other task be performed by the receiving computer if it is a single-tasking machine, like DOS-operating system machines. Fifthly, like all E-mail deliveries, the requisite E-mail software at the recipient computer must decode the encoded data received, and then cut-and-paste the data into a new file, such as NOTEPAD, which is time-consuming, before the new file is played back by a viewer or player.

SUMMARY OF THE INVENTION

It is the primary objective of the present invention to separate keys and data by providing a picture contained in a file or files on a Web Page accessable over the internet or intranet, having its informational data of picture, video and/or audio that is crippled, which data may only be read after it has been "uncrippled" by receiving "uncrippling" triggering data over Internet from the end user's computer. This "key" has provided by the Web Page via a data download after the end user has met certain requirements set by the party controling the company's host computer serving the Internet The transmit the "uncrippling" data over the Internet to user's receiving computer in order to uncripple and, actuate the crippled file contained on or accessable through the Web Page, so that the data thereon may be read by the end-user's receiving computer only in volatile memory such as RAM.

It is another objective of the present invention to enable server control of the access to its files by providing the end user the key to the "crippled" files accessable via the Web Page such that content by a company on the Internet may be better controlled, and whereby in conjunction with the content, video and/or audio playback may be combined with any updated, textual information, such as current price of a product or products,

location of a store or stores in the vicinity of the end-user's residence, etc. Specific tracks on the CD-ROM can thereby be controlled by the remote server.

It is another objective of the present invention to provide access to such "crippled" files, whereby the end user computer is provided with Internet start-up and connecting program that automatically and directly connects the end-user's computer to the company's or content provider's host server via the Internet, whereby, not only does such facilitate and encourage the connection of the end-user to the content provider's web page, but also provides the content provider with valuable marketing information, such as the physical location of the caller, whereby selected information unique to that caller may be downloaded to him over the Internet, such as name and addresses of stores of the company or advertiser nearest to the caller, etc.

It is another objective of the present invention to provide such file imaging, with or without audio, such that the data representing the picture or video and/or audio is not accessable off the end-user's computer, without first receiving the current "key" or de-crippling triggering data from the content provider's host server (URL) being a trigger as small as a few bytes.

It is another objective of the present invention to allow by server permission only, the end-user the ability to store said trigger on non-volatile media for permanent ownership of said data.

It is also an objective of the invention to provide a software program in the end-user computer called a "catcher" for catching the trigger data such as the file header, decoding it, and playing the file header data substantially "on the fly", so that the video and/or audio data on the CD-ROM may be played back on the end-user's computer substantially immediately after having received the trigger data.

It is also an objective of the invention to store both the video files and the video player for playing the video files in encrypted form at the Web site associated with a server of the Internet or Intranet, which encrypted video files and video player are downloaded to a requesting computer having the software decryption keys for the encrypted video files and player, whereby the video files are protected from unauthorized playback or copying by screen-dumping and other such methods of capturing images.

Toward these and other ends, the method of the invention for transmitting the de-crippling triggering data for video and/or the Internet consists of encoding audio over the data representing critical information of the file keys such as the header of the picture/video/audio files accessible via the Web Page controlled by the Web Page provider, and transmitting that encoded key to a local server of the local web of the Internet serving the caller, or directly to an end-user's computer. local server may then establishes a point-to-point socketconnection between the transmitting, host computer, and the receiving or end-user computer. When the encoded key is received by the Web Page from the End user's computer, the data is decoded and matched to the picture/video/audio files of accessable via Web Page over the Internet, whereupon, since the data files now have an associated and complete header, the data thereof may read, to thus allow the transmission or playback of the picture, video, or audio data on the end user's comuter.

Since the encoded header data that is sent over the Internet is a necessity before the end-user may view or playback the picture/video/audio data obtained from the Web Page, the host

computer may send along with the encoded data, additional information pertinent to the information contained in the encoded transmitted files, such as current prices, special offers or deals, locations of local stores or dealers, or any information that the host computer, content provider, would like the end-user to receive.

In order to encourage the end-user to view the picture/video/audio encoded files contained and accessable via the Web Page, the downloaded software may be provided with its own Internet dial-up program files for connecting to the host web server, so that very little time and effort is required on the part of the end-user.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be more readily understood with reference to the accompanying drawings, wherein:

Figure 1 is a pictorial representations of the hardware systems and software processes used for carrying out the present invention;

Figure 2 is a block diagram showing the hardware of the enduser's computer used for carrying out the present invention;

Figure 3 is a flow chart at a user's computer for accessing the trigger-data from a web-site;

Figure 4 is a flow chart for the server associated with the Internet for evaluating the trigger-request from the user's computer and for sending the trigger;

Figure 5 is a block diagram showing the socket-to-socket connection for transmitting the de-crippling, triggering key for causing the display of the video images and/or audio data of a "HyperCD" at the end-user's PC over the Internet from a host computer combined with a targeted URL to a recipient or end-user's computer;

Figure 6 is a block diagram showing the steps for forming on the CD-ROM the encoded video and audio data for use by the enduser recipient computer after having been crippled by removing the header-triggering key sent from the media files;

Figure 7 is a block diagram showing the process of triggering in order to invoke "HyperCD" video and/or audio data at the receiving computer for playback; and

Figure 8 is a pictorial representation of the hardware component and software processing involved;

Figure 9 is a flow chart showing the server-side of the Internet with the encrypted files thereat;

Figure 10 is a flow chart showing the "catcher" program of the invention at the ens-user's computer for playing back the receiving data immediately;

Figure 11 is a block diagram of the catcher-program process; and

Figure 12 is a block diagram of a modification of the invention where instead of using a CD-ROM, the video and/or other information is downloaded via the Internet from a Web page, which video and/or other information is encrypted with a key, with the user's computer storing the corresponding decryption key therefor.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings in greater detail, and to Figures 1 and 2 for now, the hardware used to carry out the present invention is shown. All of the hardware is conventional and well-known, and includes an end-user computer 1 having a CD-ROM drive 2 for playing a CD-ROM 3 having stored thereon crippled data 4 that is unreadable without first having received a trigger or uncrippling key 5. The end-user's computer 1 is connected via the Internet 6 to a host-computer server 7 which has stored

thereat the uncrippling or triggering key 5 for the information stored on the end-user's CD-ROM 3. The end-user's computer 1 has a display and a CPU 9 and a communication-device, such as a modem 10 for establishing communication with the Internet 6. The computer 1 also has the CD-ROM drive 2, hard-drive 11, RAM 13, and video system 8 including monitor as well as audio system 13.

Referring to Fig. 3, there is shown the flow charts for receiving the uncrippling key. The end-user first submits a request over the Internet for the uncrippling key (block 60). The user then waits for that key (block 62), and if the user is not authorized, the request is denied. If the request is authorized, then the uncrippling key is sent by the server and received by the end-user's computer (block 64), whereupon the end-user's computer directs the uncrippling key into volatile memory such as RAM, not into a RAM-disk to be visible, but saved in a dynamically allocated data structure in RAM accessible only by the receiving program, combined with crippled data read from the CD-ROM and displays the video/animation (block 68).

Figure 4 shows the process-flow that at the server side. The server conventionally provides the web pages to the Internet users (block 70), and awaits a user-request (block 72). If a request is received from an end-user's computer, the server evaluates the request (block 74) in order to authorize the transfer of the uncrippling key (block 76). If an authorization is granted, then the uncrippling, trigger key is sent (block 78).

Referring now to Figs. 5-7, video images and/or audio are converted from analog to digital and stored in crippled fashion in digitized format (block 10) on CD-ROM 3. The crippling of the CD-ROM is achieved by removing critical information such as the video-audio header, whereupon such video/audio data is rendered unreadable by the end-user's computer. The "HyperCD" 3 is provided with the URL (web page) of the designated host computer, or

server, (block 14), such, as for example: http://tekweb.com/hypercd/adver/lotto.html, which may be used on the CD-ROM for the Illinois Instant Lottery video advertising. Such digitized format may be existing computer memory files (block 12) that are already in binary format, or may be original files originated by recording the video and/or audio, as by a camcorder or tape, etc., and converting the analog signals into digital, or binary, code. In the case of originating files, the analog data may be converted to digital data using an INTEL "Smart Video Reorder Pro", for example. The raw binary data is stored on the "HyperCD" (block 16) is crippled, so the way to access the data is a socket-to-socket connection with the server of the web page of the host. By means of the process performed in block 14, the CD-ROM contains a code representing the URL web page of the host computer where the necessary decrippling key is located. This data on the CD-ROM 3 will automatically call up and connect the end-user's computer to the host computer's server 7 on the Internet, whereby a socket-to-socket connection is made therebetween (block 18). Such an automatic connection is well-known, and will automatically find the user's browser, will call the Internet service provider, and pass the necessary links from the CD-ROM to the browser in order to to the host's web page. Such software is available on the 95" operating system, such as "ActiveX". The host computer then sends back to the local server serving the end-user's computer the necessary, uncrippling trigger for the specific video/audio data on the end-user's CD-ROM (block 20). From the local server, the data is sent out directly over the Internet to the end-user, and, in particular, to the RAM 12 of the end-user's computer (block 22). In RAM, the trigger (block 22), and the data on the CD-ROM 3 are combined, and played back (block 24), as described above. However, as will be explained hereinbelow, since

the key 5 is being sent via Internet 6, the end-user's computer 7 must be equipped with the requisite software which is capable of receiving data from the server 7 and which will ensure that the received encoded key 5 is placed safely in RAM 12, and not allowed to be otherwise saved in hard drive 11 where it may be captured and used in a way not authorized by the server 7.

Referring to Figure 6, at the end-user computer end, the raw analog data of the audio/video is digitized (block 30), as plained above, and stored on CD-ROM 3 by conventional techniques. During the storage of the data on the key or critical information of the media file such as video-audio header associated with the video/audio files will be omitted from storage on the CD-ROM, whereupon the CD-ROM is crippled, or prevented from being read for playing back the video/audio files (block 32). The CD-ROM is provided with software for linking up the host-computer which has necessary key 5 for uncrippling the video-audio files 4 on the CD-ROM 3, which linking software maps or automatically directs the end-user's computer to the host server via the Internet, such linking software having all of the necessary routing information for directing the Internet connection to the host computer's server and web page (URL) (Block 34). The encoding of the critical information such as "Header" trigger is achieved utilizing any conventional encoding program, such as, for example, RSA by Data Security (block 36). This encoding will create a trigger of a few bytes comprising all of the necessary information to trigger the CD-ROM, and to invoke the video and/or audio data.

Figure 7 shows the steps involved for de-crippling the data on the CD-ROM 3 of a receiving or end-user's computer 1 (block 40). A socket-to-socket connection is made between the host, or sending, computer and the receiving, or end-user's computer by means of the linking software described above installed on the

end-user's computer (block 42). The Internet Service Provider (ISP) of the end-user's computer's web of the Internet sends the data to the host computer's server over the Internet, which means that any number of local servers and gateways and routers will have been involved in transmitting the data, until it finally arrives at the server 7 serving the web associated with the host computer (block 42). As soon as this socket-to-socket connection is made, the encoded trigger 5 is sent, at a rate of about 3.6 kbytes a second (block 44). The end-user's computer has a specially-dedicated software program for catching the key, decrypting the key 5 from the server and data from the CD-ROM 3, combining the key and data and playing it back. This catcher is a software program discussed hereinbelow that will direct the incoming key, such as the header, to a random location in RAM 8 such as cache directory, of the computer (block 46) and the key will only be visible to the program. The catcher is necessary, since, if it were not present, it is the "nature" of personal computers to randomly dump data which has not had a specific destination assigned to it. Thus, without the catcher, the incoming data may be strewn into a different directory and/or subdirectories, to, thus, be irretrievably lost. As soon as the encoded key 5 arrives and is stored in RAM by means of the catcher program, a subroutine "player" in the program in the receiving computer begins to decode the trigger, in order to invoke the correct track of the CD-ROM (block 48), from which the data passes to the audio/video subsystem (8,13, Fig. 2), in order to play the video or audio (block 50). It is noted, and emphasized, that as soon as the key has been decoded, the video and/or audio data is immediately "played" back by the audio/video subsystems (8,13, Fig. 2), bypassing the necessity of having to first store the key, or other trigger, on a hard drive before playback. Referring specifically to Fig. 8, there are shown the server 1,

the user computer 2, and the software processes 3 used for transmitting the uncrippling key 4 over a network 5, the combining in RAM 6 of the key 4 and crippled data 7 from the CD-ROM 8, the rendering or displaying of the media data 9 such as video/audio or animation on the display 10 or from the audio system 11, and the storing of the key 4 to non-volatile media 13, such as a hard drive, for permanent ownership of the encrypted CD media.

It is noted that it is possible to "cripple" the video/audio data on the CD-ROM by other means other than deleting the header thereof. For example, the file could be made a hidden file, with the trigger data from the host computer being a command to remove the hidden status. Alternatively, the video/audio file could have a changed extension, with the trigger data from the host computer being a command to change the extension. Moreover, the crippling of the video/audio file may be achieved by the use of ZIP file, with the trigger data from the host computer being a command to UNZIP the data. It is, also, within the scope and purview of the invention to use a floppy disk for storing the crippled file, described above, for those applications requiring less diskmemory, with the uncrippling data from the host server being sent to the floppy-disk drive via the catcher program, as described above for uncrippling the data on the floppy-disk. Of course, the crippled file may also be stored on any storage medium, such as the hard drive 11, with the uncrippling data from the host server being sent to the drive for that storage medium via the catcher as explained above. The uncrippling data may also be stored directly in a hard drive or EPROM so that the user permanent access to it whenever he wishes to uncripple the file; that is, if the user wishes to permanently retain the crippled nature of the data on the CD-ROM, or floppy, he may permanently store the downloaded uncrippling data in hard drive in order to temporarily uncripple the data on the CD-ROM or floppy every time that it is used, as long as such access is authorized by the server.

Referring to Figs. 9-11, the above-discussed "catcher" program is shown. Encrypted files, such as the header for the crippled CD-ROM data at an end-user's computer, is stored at a server associated with the Internet (block 100 in Fig.9). This headertrigger or other file is encoded and encrypted in a conventional manner at the server (blocks 102, 104). This encoding will create a header of about 50K or less comprising all of the necessary information necessary to the video and/or audio data on the CD-ROM, as is well-known in the art. Then, the encoded data is to the local web server (block 36) in order to be sent out Internet, and then to the end-user computer. When the user computer requests that the trigger be downloaded, according to the process described above (block 106 of Fig. 10), the catcher program at the end-user computer receives the partial data or trigger, such as a header for the CD-ROM file (block 108). catcher program decodes the data, using a conventional decoder (block 110), and then sends the data directly the conventional player of end-user computer (block 112) for substantially immediate playback. As soon as the encoded header arrives and stored in the cache directory, the program entitled "player" the receiving computer begins to decode the data, in order to generate the original binary code, from which the data passes to a conventional digital-to-analog converter, in order to play the video or audio. It is noted, and emphasized, that as soon as the header has been decoded, the video and/or audio data starts play back by the digital-to-analog converter. That is, it is not necessary to store the trigger data on a hard drive, although it is possible to do so, if it is desired to allow the end-user unobstructed access to the video or audio files on the CD-ROM, or the like, at any time in the future.

Referring to Fig. 12, an alternative embodiment is shown. In this embodiment, the use of a hyperCD is obviated, and the video and/or audio, and other data, is downloaded via the Internet from a Web page (block 150). The video and/or audio, and other data, are encrypted with an encryption key. Each user who is to be able access the data at that Web page will have a corresponding decryption key (block 152) for decrypting the data. In addition to the video or graphic or other data being sent, the Web site will also download the video player, such as JPEG, "QUICKTIME", or the like, to the user's computer via the Internet. The player, such as JPEG, is also encrypted, so that even after the end user has received the video and other data from the Web site via the Internet, the conventional player stored on the user's computer (block 154) will not be able to play the video. The data emanating from the Internet is first identified with the requesting file of the user's computer (block 158), and then sent to the media player for playback (block 160) using the encrypted player, downloaded from the Web site. The encrypted player, such as JPEG, is decrypted, like the video data, using the decryption key (block 152) provided by the provider of the Web site. It is noted that before the video is downloaded from the Web site via the Internet, the user must first enter his password or other protective feature. According to this embodiment of the invention, videos at a Web site are protected from being viewed without proper authorization, and if the downloaded video were stored in memory of the user's computer, it would not be playable without first downloading the encrypted player, such as JPEG, from the Web site. Thus, the Web provider is able to protect his video and/or graphic data from being copied by the end user's computer. Although the end user may be able to print out a graphic, this would be of very poor quality. It is also within scope and purview of the invention to download only the encrypted player,

for playing back encrypted video and/or graphics already stored on the requesting, end user's computer. In this case, the video data mabe supplied to the end user in other forms besides the Internet or Intranet, but still may not be played back without use of the encrypted player downloaded from the Web site and then decrypted by the decrypting key at the end user's computer. Alternatively, the encrypted player may be provided to the end user, and only the encrypted video files may be sent over the Internet or Intranet.

The following is the software code listing for the server of the host computer's web for bursting the encoded "header" trigger data through the Internet.

SENDFILE.C

```
#!/usr/sbin/perl
# Get the input
read(STDIN, $buffer, $ENV§'CONTENT_LENGTH'†);
# Split the name-value pairs
@pairs = split(/&/, $buffer);
foreach $pair (@pairs)
                     (\text{name, } \text{value}) = \text{split}(/=/, \text{pair});
                     # UN-Webify plus signs and %-encoding
                     \text{Svalue} = \text{TM tr}/+//
                     value = \sqrt[m]{s}/\sqrt{(a-fA-FO-9)[a-fA-FO-9]} /pack("C", hex($1)) /eg;
                     $FORM\$name\tau = \$value;
# Location of the CMC files
$CMCDIR = '/UL/people/CMC/' . $FORM\(\)'dir');
# If the $CMCDIR director is not found, exit
if (!-d "$CMCDIR")
                     &Error("$CMCDIR not found on this system. Please check the path and try agai
n®n");
# If there are no files in the CMC directory no point trying to transfer files
else
 opendir( THISDIR, "$CMCDIR");
 @allfiles = grep(/*.CMC/, readdir(THISDIR));
 if(!@allfiles) §
                     &Error("There are currenly no CMC files in this directory. Try again later."); †
 sort @allfiles:
print ("HTTP/1.0 200®n");
print ("Content-type: multipart/x-mixed-replace; boundary = --- This Random String --- ®n®n");
print ("---ThisRandomString---®n");
#Send the First file with .IVD extension which invokes IVIDEO.EXE
print "Content-type: application/x-IVD®N®N";
$CONTENT = cat $CMCDIR/CMC001.IVD;
print $CONTENT;
print ("®n---ThisRandomString---®n");
# Now send rest of the .CMC files which would call filehd1.exe
while (@allfiles)
§
                     $file = shift @allfiles;
                     print "Content-type: application/x-CMC®n®n";
                     print "$file®n";
                     $CONTENT = "cat $CMCDIR/$file";
                     print $CONTENT;
                     print ("%n---ThisRandomString---%n");
```

```
# Subroutine that tells whats wrong
sub Error

print ("Content-type: texxt/html®n®n");
print ("_TitlecError_/Titlec®n");
print ("_H1cError: _/H1c_pc®n");
print ("_pt_pc_pc_hrc_a href=®"mailto:cmcinter®@suba.com®"cContact webmaster _/ac");
exit ();

# Subroutine that tells whats wrong

## Subr
```

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The following is the software code listing at the host-computer for encoding the "header" binary data into seven-digit ASCII text format, and also listed is the software code listing for the "player", or decoder, at each receiving, or end-user, computer, for decoding the encoded text format back into binary:

.LS1

```
HOOK MENU1 MENU LOADONCALL MOVEABLE DISCHARDABLE
POPUP "&File"
MENUITEM "&Encode..." 1169
MENUITEM "&Decode..."1170
POPUP "&Actions"
MENUITEM "&Concatenate Files...",1171
MENUITEM "&View A Report File..." 1172
MENUITEM "C&lean Directories...",1173
MENUITEM SEPARATOR
MENUITEM "&Display Wincode Task", 1174
MENUITEM "&Hide Wincode Task",1175
+ W
POPUP "&Options"
MENUITEM "&Encode...",1176
MENUITEM "&Decode..."1177
MENUITEM "&Wincode..."1178
MENUITEM "&Winsort..."1179
MENUITEM SEPARATOR
MENUITEM "&Viewer..."1180
MENUITEM SEPARATOR
MENUITEM "&ZIP/UNZIP...",1181
MENUITEM SEPARATOR
MENUITEM "&Hook App...",1182
POPUP "&Help"
MENUITEM "&Contents", 1183
MENUITEM "&Search for Help on..." 1184
MENUITEM "&How to Use Help", 1185
MENUITEM "&Wincode FAQ", 1186
MENUITEM "C&opyrights",1187
MENUITEM SEPARATOR
MENUITEM "O&rdering the Help file..." 1188
MENUITEM SEPARATOR
MENUITEM "&About Wincode...",1189
MENUITEM SEPARATOR
MENUITEM "&UnHook Wincode", 1190
MENUITEM SEPARATOR
```

```
MENUITEM "E&xit Wincode", 1191
HOOK MENU2 MENU LOADONCALL MOVEABLE DISCARDABLE
POPUP "&File"
MENUITEM "&Encode..." 2269
MENUITEM "&Decode..."2270
POPUP "&Actions"
MENUITEM "&Concatenate Files..." 2271
MENUITEM "&View A Report File..." 2272
MENUITEM "C&lean Directories...",2273
MENUITEM SEPARATOR
MENUITEM "&Display Wincode Task",2274
MENUITEM "&Hide Wincode Task",2275
POPUP "&Options"
MENUITEM "&Encode..." 2276
MENUITEM "&Decode..." 2277
MENUITEM "&Wincode..."2278
MENUITEM "&Winsort..." 2279
MENUITEM SEPARATOR
MENUITEM "&Viewer..."2280
MENUITEM SEPARATOR
MENUITEM "&ZIP/UNZIP...",2281
MENUITEM SEPARATOR
MENUITEM "&Hook App..." 2282
† <u>141</u>
POPUP "&Help"
MENUITEM "&Contents", 2283
MENUITEM "&Search for Help on..." 2284
MENUITEM "&How to Use Help", 2285
MENUITEM "&Wincode FAQ", 2286
MENUITEM "C&opyrights",2287
MENUITEM SEPARATOR
MENUITEM "O&rdering the Help file..." 2288
MENUITEM "&About Wincode..." 2289
MENUITEM SEPARATOR
```

```
MENUITEM "&UnHook Wincode", 2290
MENUITEM SEPARATOR
MENUITEM "E&xit Wincode", 2291
HOOK MENU3 MENU LOADONCALL MOVEABLE DISCARDABLE
POPUP "&File"
MENUITEM "&Encode..." 3369
MENUITEM "&Decode..." 3370
POPUP "&Actions"
MENUITEM "&Concatenate Files..." 3371
MENUITEM "&View A Report File..." 3372
MENUITEM "C&lean Directories...",3373
MENUITEM SEPARATOR
MENUITEM "&Display Wincode Task", 3374
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POPUP "&Options"
MENUITEM "&Encode..." 3376
MENUITEM "&Decode..." 3377
MENUITEM "&Wincode..."3378
MENUITEM "&Winsort..." 3379
MENUITEM SEPARATOR
MENUITEM "&Viewer..."3380
MENUITEM SEPARATOR
MENUITEM "&ZIP/UNZIP...",3381
MENUITEM SEPARATOR
MENUITEM "&Hook App..." 3382
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POPUP "&Help"
MENUITEM "&Contents", 3383
MENUITEM "&Search for Help on..." 3384
MENUITEM "&How to Use Help", 3385
MENUITEM "&Wincode FAQ", 3386
MENUITEM "C&opyrights",3387
MENUITEM SEPARATOR
MENUITEM "O&rdering the Help file..." 3388
MENUITEM SEPARATOR
MENUITEM "&About Wincode...",3389
MENUITEM SEPARATOR
MENUITEM "&UnHook Wincode", 3390
MENUITEM SEPARATOR
MENUITEM "E&xit Wincode", 3391
HOOK_WORKING DIALOG LOADONCALL MOVEABLE DISCARDABLE 100,89,141,55
STYLE WS_POPUP ¶WS_VISIBLE ¶WS_CAPTION
CAPTION "Wincode Working..."
FONT 8, "MS Sans Serif"
LTEXT ""103,81,19,27,8
LTEXT "",102,81,9,27,8
PUSHBUTTON "&Stop",104, 18, 37, 45, 13
PUSHBUTTON "&Quit",105,78,37,45,13
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RTEXT "Total Job:",-1, 12, 19, 66, 8
CONTROL "",-1, "STATIC",SS_BLACKFRAME ¶ WS_CHILD ¶ WS_VISIBLE, 6,6,129,25
RTEXT "",101,12,9,66,8
BASE64 TYPE DIALOG LOADONCALL MOVEABLE DISCARDABLE 71,26,123,181
STYLE DS MODALFRAME ¶WS POPUP ¶WS_CAPTION ¶WS_SYSMENU
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,12,163,45,13
RADIOBUTTON "Application: &Octet-Stream:, 301, 12, 19, 99, 12, BS AUTORADIOBUTTON ¶ WS_TABSTOP
RADIOBUTTON "Application: &Postscript:, 302, 12, 34, 99, 12, BS AUTORADIOBUTTON ¶ WS TABSTOP
RADIOBUTTON "Image: &JPEG", 303, 12, 49, 99, 12, BS AUTORADIOBUTTON ¶WS TABSTOP
RADIOBUTTON "Image: &GIF", 304, 12, 64, 99, 12, BS AUTORADIOBUTTON \( \) \( \) WS TABSTOP
RADIOBUTTON "Image: &X-BMP", 305, 12, 79, 99, 12 BS-AUTORADIOBUTTON ¶WS_TABSTOP
RADIOBUTTON "Video: &MPEG", 306, 12, 94, 99, 12, BS_AUTORADIOBUTTON \[ \] \WS_TABSTOP
RADIOBUTTON "Audio: X-&WAV", 307, 12, 109, 99, 12, BS AUTORADIOBUTTON ¶ WS_TABSTOP
PUSHBUTTON "Cancel", 2, 66, 163, 45, 13
GROUPBOX "Content-Type", 101, 6, 5, 111, 152, BS-GROUPBOX \( \text{WS_GROUP} \)
DESC TEXT DIALOG LOADONCALL MOVEABLE DISCARDABLE 9,50,288,138
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU'
CAPTION "Descriptive Text will be added to first Encoded file..."
FONT 8. "MS Sans Serif"
EDITTEXT 201, 6, 6, 276, 108, ES MULTILINE ¶ ES AUTOVSCROLL ¶ ES_WANTRETURN
  *WS BORDER ¶WS VSCROLL ¶WS TABSTOP
DEEPUSHBUTTON "OK",1,69,120,60,13
PUSHBUTTON "Cancel", 2, 159, 120, 60, 13
DIRESELECT DIALOG LOADONCALL MOVEABLE DISCARDABLE 15,20,147,116
STYLE DS MODALFRAME \ WS OVERLAPPED \ WS CAPTION \ WS SYSMENU
FONT 8, "Helv"
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EDITTEXT 101,42,5,98,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
DEFPUSHBUTTON "OK",1,88,22,50,14
LISTBOX 103,6,30,64,82,LBS_STANDARD ¶WS_TABSTOP
PUSHBUTTON "Cancel" 2, 88, 41, 50, 14
LTEXT "D&irectories:",-1,6,18,64 10
LTEXT "&Directory:"-1, 6, 6, 36, 10
EXISTS DIALOG LOADONCALL MOVEABLE DISCARDABLE 41,34,177,54
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Wincode - Output File"
FONT 8, "MS Sans Serif"
PUSHBUTTON "&Overwrite",1,9,36,45,13
PUSHBUTTON "&Rename", 101, 66, 36, 45, 13
PUSHBUTTON "&Skip File", 2, 123, 36, 45, 13
CTEXT "",102,21,15,135,8
CONTROL "","STATIC",SS_BLACKFRAME ¶WS_CHILD ¶WS_VISIBLE, 15,6,147,21
FILE OPEN DIALOG LOADONCALL MOVEABLE DISCARDABLE 40,20,202,130
STYLE DS MODALFRAME \ WS OVERLAPPED \ \ WS_CAPTION \ \ WS_SYSMENU
FONT 8, "Helv"
EDITEXT 100,42,6,98,12,ES AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
DEFPUSHBUTTON "OK",1, 146,5,50,14
LISTBOX 102,6,44,64,82,LBS STANDARD ¶WS TABSTOP
LISTBOX 103,76,44,64,82,LBS STANDARD \ WS_TABSTOP
PUSHBUTTON "Cancel" 2, 146, 23, 50, 14
LTEXT "File&name:",-1,6,8,36,10
LTEXT "Directory:",-1,6,20,36,10
LTEXT "",101,42,20,98,10
LTEXT "&Files:", 1, 6, 32, 64, 10
LTEXT "&Directories:",-1,76,32,64,10
RENAME DIALOG LOADONCALL MOVEABLE DISCARDABLE 34,31,199,57
STIXLE DS MODALFRAME \ WS_POPUP \ WS_CAPTION \ WS_SYSMENU
FONT 8, "MS Sans Serif"
EDITEXT 102,6,21,171,12 ES AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
 PUSHBUTTON "?",103,180,20,12,13
 DEEPUSHBUTTON "OK",1,42,39,45,13
 PUSHBUTTON "Cancel",2,111,39,45,13
LTEXT "Enter a VALID DOS filename:", 104, 6, 6, 159, 9
VIEW RPT DIALOG LOADONCALL MOVEABLE DISCARDABLE 20,43,300,154
STYLE DS-MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Wincode - Report File Viewer"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",2, 111, 135, 78, 13
EDITTEXT 101,6,15,288,99,ES MULTILINE ¶ES READONLY ¶WS BORDER ¶WS VSCROLL ¶WS HSCROLL ¶WS TABSTOP
CHECKBOX "&Delete Report File After Viewing", 103, 6, 117, 138, 12, BS-AUTOCHECKBOX ¶WS TABSTOP
 LTEXT "File:",1,7,5,15,8
LTEXT "",102,25,5,270,8
```

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The following is the software code listing at each receiving, or end-user, computer, for the catcher for receiving the uncrippling data in the cache directory of RAM and directing it to the proper drive:

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MAIN MENU MENU LOADONCALL MOVEABLE DISCARDABLE
POPUP"&File"
MENUITEM "&Encode..."101
MENUITEM "&Decode..."102
MENUITEM SEPARATOR
MENUITEM "E&xit",1
POPUP "&Actions"
MENUITEM "&Concatenate Files..." 103
MENUITEM "&Viewa Report File...",104
MENUITEM "C&lean Directories...",105
MENUITEM SEPARATOR
MENUITEM "&Interactive Drag/Drop", 121
MENUITEM SEPARATOR
MENUITEM "Hook Wincode", 122
+ 1
POPUP "&Options"
MENUITEM "&Encode..."106
MENUITEM "&Decode..."107
MENUITEM "&Wincode..."108
MENUITEM "W&insort..." 109
MENUITEM SEPARATOR
MENUITEM "&Viewer..."110
MENUITEM SEPARATOR
MENUITEM "&ZIP/UNZIP...",111
MENUITEM SEPARATOR
MENUITEM "&Hook App...",112
POPUP "&Help"
MENUITEM "&Contents",113
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MENUITEM "&Search for Help on...",114
MENUITEM "&How to Use Help", 115
MENUITEM "&Wincode FAQ", 116
MENUITEM "C&opyrights",117
MENUITEM SEPARATOR
MENUITEM "O&rdering the Help file..." 118
MENUITEM SEPARATOR
MENUITEM "&About Wincode...",119
ABOUT DIALOG LOADONCALL MOVEABLE DISCARDABLE 76,55,135,141
STYLE DS MODALFRAME ¶WS POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "About CMCCODE"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",2, 14, 123, 45, 13
PUSHBUTTON "More..."1,74,123,45,13
CTEXT "CMCCODE:",-1,45,9,45,8
CTEXT "Video Encoder/Decoder", -1, 10, 18, 114, 8
CTEXT "for the Internet", -1, 34, 27, 66, 8
CTEXT "Copyright®xA9 1993,1994",1,24,72,87,8
CTEXT "Snappy_Inc.", 1, 44, 63, 45, 8
CONTROL "",-1, "STATIC",SS BLACKFRAME ¶ WS CHILD ¶ WS_VISIBLE, 6, 6, 123, 111
CTEXT "Version 1.0",-1, 40, 37, 54, 8
CTEXT "Developers Kit Provided by:",-1, 17, 49, 101, 8
CTEXT "created by Caesar Collazo", -1, 18, 82, 99, 8
CTEXT "cmcinter@suba.com", -1, 12, 103, 111, 8
CTEXT "Questions...Comments...e-mail to:",-1, 9, 93, 117, 8
CONTROL "",-1, "STATIC",SS BLACKFRAME ¶ WS CHILD ¶ WS VISIBLE, 12,47,111,1
CONTROL "",-1, "STATIC", SS BLACKFRAME \ WS CHILD \ WS_VISIBLE, 12,59,111,1
ALLONE DIALOG LOADONCALL MOVEABLE DISCARDABLE 35,31,132,60
STYLE DS MODALFRAME ¶WS_POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "CMCCODE - Encode Filename"
FONT 8, "MS Sans Serif"
EDITTEXT 101,28,23,75,12,ES AUTOHSCROLL \{\text{WS BORDER \{\text{WS_TABSTOP}\}}\}
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DEFPUSHBUTTON "OK",1, 12, 42, 45, 13
PUSHBUTTON "Cancel" 2, 75, 42, 45, 13
CTEXT "Enter a filename for ALL the files:",-1,6,7,120,9
BASE64_MODE DIALOG LOADONCALL MOVEABLE DISCARDABLE 93,54,111,69
STYLE DS_MODALFRAME ¶WS_POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "BASE64 Method"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,6,51,45,13
RADIOBUTTON "&MIME Conformant", 323, 12, 10, 87, 12, BS_AUTORADIOBUTTON ¶WS_GROUP ¶WS_TABSTOP
RADIOBUTTON "&Raw BASE 64",324,12,25,87,12,BS_AUTORADIOBUTTON ¶WS_TABSTOP
PUSHBUTTON "Cancel" 2, 60, 51, 45, 13
GROUPBOX "",106,6,2,99,42,BS_GROUPBOX
CHOOSE V DIALOG LOADONCALL MOVEABLE DISCARDABLE 15,20,174,78
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Selecta Report File Viewer"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,36,60,45,13
RADIOBUTTON "&Wincode Internal File Viewer (32K Max.)",701,12,10,150,12,BS_AUTORADIOBUTTON ¶WS_GROUP ¶WS_TABSTOP
RADIOBUTTON "Windows &Notepad", 702, 12, 24, 150, 12, BS_AUTORADIOBUTTON \( \) WS_TABSTOP
RAPPIOBUTTON "&Other:",703,12,38,33,12,BS AUTORADIOBUTTON \ WS_TABSTOP
EDFTEXT 704,48,38,102,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
PUSTIBUTTON "?",705,153,38,12,13
PUSEBUTTON "Cancel" 2, 93, 60, 45, 13
GROUPBOX "",101,6,2,162,54,BS_GROUPBOX
CLEAN DIR DIALOG LOADONCALL MOVEABLE DISCARDABLE 52,51,228,162
STYLE DS_MODALFRAME \ WS_POPUP \ WS_CAPTION \ WS_SYSMENU
CAPTION "Clean Directories"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,92,143,45,13
CHECKBOX "",601,12,19,192,12,BS_AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "?",605,207,19,12,13
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CHECKBOX ""602,12,34,192,12,BS AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "?",606,207,34,12,13
CHECKBOX "",603,12,49,192,12,BS AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "?",607,207,49,12,13
CHECKBOX "",604,12,64,192,12,BS AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "?",608,207,64,12,13
CHECKBOX "Empty the &Clipboard (release global memory)", 612, 12, 102, 192, 12, BS AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "?",613,207,102,12,13
PUSHBUTTON "Clean & All Directories", 614, 12, 120, 96, 13
PUSHBUTTON "&Report Files Only (*.rpt)", 615, 120, 120, 96, 13
PUSHBUTTON "Cancel", 2, 165, 143, 45, 13
PUSHBUTTON "&Help",611,19,143,45,13
GROUPBOX "Select Directories to Clean", 101, 7, 5, 216, 93, BS GROUPBOX
LTEXT "Status:",-1, 12, 83, 27, 8
LTEXT "",610,42,83,177,8
DEC CONFIG DIALOG LOADONCALL MOVEABLE DISCARDABLE 26,26,250,147
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Decode Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1, 195,9,45,13
CHECKBOX "Du&mp Files", 301, 12, 9, 69, 12, BS AUTOCHECKBOX ¶WS_TABSTOP
CHECKBOX "&Run Decoded", 302, 12, 21, 69, 12, BS AUTOCHECKBOX \ WS TABSTOP
CHECKBOX "&Error Checking",303,87,9,72,12,BS AUTOCHECKBOX \ WS TABSTOP
CHECKBOX "Sort b&y Extension", 304, 87, 21, 72, 12, BS AUTOCHECKBOX ¶ WS_TABSTOP
PUSEBUTTON "E&xtension(s)...",305,6,42,66,13
COMBOBOX 306,120,41,42,60,CBS_DROPDOWNLIST \WS_VSCROLL \WS TABSTOP
EDETEXT 307,12,70,132,9, ES AUTOHSCROLL NOT WS BORDER WS TABSTOP
PUSHBUTTON "?", 308, 147, 67, 12, 13
RADOBUTTON "Def&ault to location of Input file",309,12,99,132,12,BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RABOBUTTON "User select &on Decode", 310, 12, 112, 132, 12, BS_AUTORADIOBUTTON \( \Psi \) WS_TABSTOP
RADIOBUTTON "&Set:",311,12,125,27,12,BS_AUTORADIOBUTTON ¶WS TABSTOP
EDITTEXT 312,42,125,102,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
PUSHBUTTON "?",313,147,124,12,13
RADIOBUTTON "&Wincode select", 314, 174, 110, 66, 12, BS_AUTORADIOBUTTON \( \Psi \) WS_GROUP \( \Psi \) WS_TABSTOP
RADIOBUTTON "&User select", 315, 174, 125, 66, 12, BS AUTORADIOBUTTON ¶WS TABSTOP
PUSHBUTTON "Cancel" 2, 195, 27, 45, 13
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PUSHBUTTON "&Defaults", 316, 195, 45, 45, 13
PUSHBUTTON "&Help",317,195,63,45,13
GROUPBOX "Decoded File Name", 102, 168, 96, 75, 45, BS_GROUPBOX
LTEXT "Code Type:",-1,78,44,39,8
GROUPBOX "Decoded File Directory", 101, 6, 87, 156, 54, BS_GROUPBOX
CONTROL "",1, "STATIC",SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 6,6,156,30
GROUPBOX "Temp Directory", 103, 6, 59, 156, 24, BS_GROUPBOX
DEC EXT DIALOG LOADONCALL MOVEABLE DISCARDABLE 49,30,144,133
STYLE DS MODALFRAME \ WS POPUP \ WS CAPTION \ WS SYSMENU
CAPTION "Decode File Extension(s)"
FONT 8, "MS Sans Serif"
EDITTEXT 318,12,25,45,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
PUSHBUTTON "&Add",320,12,43,45,13
PUSHBUTTON "&Delete", 321, 12, 61, 45, 13
PUSHBUTTON "A&ssociate", 322, 12, 79, 45, 13
LISTBOX 319,73,26,58,69,LBS NOTIFY ¶WS BORDER ¶WS BORDER ¶WS VSCROLL
DEFPUSHBUTTON "OK",1, 18, 115, 45, 13
PUSHBUTTON "Cancel" 2, 81, 115, 45, 13
LTEXT "Enter Decode Extension: (Max + 20)",-1, 12, 13, 120, 8
CONTROL "", 1, "STATIC", SS BLACKFRAME ¶ WS CHILD ¶ WS VISIBLE, 6, 6, 132, 102
LTEXT "Ext. Count:", -1, 73, 95, 39, 8
LTEXT "",323,114,95,16,8
DEEFILES DIALOG LOADONCALL MOVEABLE DISCARDABLE 63,20,78,127
STYLE DS MODALFRAME \ WS OVERLAPPED \ WS CAPTION \ WS SYSMENU
FONT 8, "Helv"
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DEFPUSHBUTTON "OK",2, 16, 108, 45, 13
LISTBOX 609,7,19,64,82,LBS STANDARD \ WS TABSTOP
CTEXT "Files being deleted:", -1, 4, 7, 69, 10
DIR_SELECT DIALOG LOADONCALL MOVEABLE DISCARDABLE 15,20,147,116
STYLE DS MODALFRAME ¶WS OVERLAPPED ¶WS CAPTION ¶WS SYSMENU
FONT 8, "Helv"
EDETEXT 101,42,5,98,12,ES AUTOHSCROLL \ WS BORDER \ WS TABSTOP
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DEFPUSHBUTTON "OK",1,88,22,50,14
LISTBOX 103,6,30,64,82,LBS STANDARD ¶WS_TABSTOP
PUSHBUTTON "Cancel" 2, 88, 41, 50, 14
LTEXT "D&irectories:",-1, 6, 18, 64, 10
LTEXT "&Directory:",-1, 6, 6, 36, 10
DONE DIALOG LOADONCALL MOVEABLE DISCARDABLE 21,32,207,54
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "CMCCODE - Done!"
FONT 8, "MS Sans Serif"
CTEXT "",101,12,14,184,9
CONTROL "",-1, "STATIC",SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 6, 6, 195, 25
DEFPUSHBUTTON "OK",2,64,36,78,13
DONE SHOW DIALOG LOADONCALL MOVEABLE DISCARDABLE 21,32,207,54
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS_SYSMENU
CAPTION "CMCCODE - Done!"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",2, 18, 36, 78, 13
PUSHBUTTON "&View Report File", 1, 111, 36, 78, 13
CTEXT "",101,12,14,184,9
CONTROL "",-1, "STATIC", SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 6, 6, 195,25
DRAGDROP DIALOG LOADONCALL MOVEABLE DISCARDABLE 119,85,139,110
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Interactive Drag & Drop"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,18,92,45,13
RATIOBUTTON "&Encode",802,13,39,48,12,BS_AUTORADIOBUTTON \ WS GROUP \ WS TABSTOP
RADIOBUTTON "&Decode",803,13,53,48,12,BS_AUTORADIOBUTTON \[ \Psi \] WS_TABSTOP
RADIOBUTTON "E&xt. Based", 804, 13, 67, 48, 12, BS_AUTORADIOBUTTON \[ \Psi \] WS_TABSTOP
CHECKBOX "&Zip First", 805, 75, 39, 54, 12, BS_AUTOCHECKBOX \ \ WS_TABSTOP
CHECKBOX "U&NZIP After", 806, 75, 53, 54, 12, BS_AUTOCHECKBOX \ \ WS_TABSTOP
CHECKBOX "&Winsort First", 807, 75, 67, 54, 12, BS_AUTOCHECKBOX \[ \Psi \] WS_TABSTOP
PUSHBUTTON "Cancel", 2, 75, 92, 45, 13
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GROUPBOX "Drop to:",101,7,26,57,57,BS_GROUPBOX
GROUPBOX "Options:",102,70,26,63,57,BS GROUPBOX
COMBOBOX 801,69,7,64,66,CBS DROPDOWNLIST ¶WS VSCROLL ¶WS TABSTOP
LTEXT "CMC Method:", -1, 6, 10, 60, 8
ENC CONFIG DIALOG LOADONCALL MOVEABLE DISCARDABLE 10,23,262,189
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS_SYSMENU
CAPTION "Encode Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1, 206, 9, 46, 13
CHECKBOX "&Line CheckSums", 201, 12, 9, 72, 12, BS AUTOCHECKBOX \( \) WS_TABSTOP
CHECKBOX "&File CheckSums", 202, 12, 24, 72, 12, BS AUTOCHECKBOX \ WS TABSTOP
CHECKBOX "Fil&e Headers", 203, 12, 39, 72, 12
CHECKBOX "File Desc&ription", 204, 12, 54, 72, 12, BS AUTOCHECKBOX ¶WS TABSTOP
CHECKBOX "Des&criptive Name", 205, 12, 69, 72, 12, BS AUTOCHECKBOX ¶WS TABSTOP
CHECKBOX "I&nclude Table", 206, 90, 9, 72, 12, BS AUTOCHECKBOX \ WS TABSTOP
CHECKBOX "Make E&MBL Files", 207, 90, 24, 72, 12
CHECKBOX "Sin&gle File", 208, 90, 39, 72, 12
CHECKBOX "All&In One File", 209, 90, 54, 72, 12
CHECKBOX "Number b&y Ext.",210,90,69,72,12
EDITTEXT 211,123,90,42,12
EDITTEXT 212,123,107,42,12
RADIOBUTTON "Def&ault to location of input file",213,12,138,132,12,BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RADIOBUTTON "&Set:" 215, 12, 166, 27, 12, BS AUTORADIOBUTTON \ \ \WS TABSTOP
EDITTEXT 216,42,166,105,12,ES AUTOHSCROLL \WS BORDER \WS TABSTOP
PUSHBUTTON "?" 217, 150, 166, 12, 13
COMBOBOX 218,213,90,42,57,CBS DROPDOWNLIST \ WS VSCROLL \ WS TABSTOP
COMBOBOX 219,213,107,42,39,CBS DROPDOWNLIST \ WS VSCROLL \ WS TABSTOP
RAPHOBUTTON "&Wincode select", 220, 177, 148, 69, 12, BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RADIOBUTTON "&User select", 221, 177, 164, 69, 12, BS AUTORADIOBUTTON \[ \text{WS TABSTOP} \]
PUSHBUTTON "Cancel",2, 206, 27, 46, 13
PUSHBUTTON "&Default", 222, 206, 45, 46, 13
PUSHBUTTON "&Help",223,206,63,46,13
CONTROL "",-1, "STATIC",SS_BLACKFRAME ¶WS_CHILD ¶WS_VISIBLE, 6, 6, 159,78
LTEXT "Bytes per File (Lines/File):", 103,6,93,114,8
LTEXT "Extension for Encoded Files:",104,6,110,108,8
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GROUPBOX "Encoded File Name", 102, 171, 132, 84, 51, BS_GROUPBOX
GROUPBOX "Encoded File Directory", 101, 6, 123, 159, 60, BS_GROUPBOX
LTEXT "Code Type:",105,171,93,39,8
LTEXT "File Type:",-1, 171, 110, 39, 8
EXT_INFO DIALOG LOADONCALL MOVEABLE DISCARDABLE 76,55,207,111
STYLE DS MODALFRAME ¶WS_POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "More About CMCCODE"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",2,81,93,45,13
CONTROL "",-1, "STATIC",SS_BLACKFRAME ¶ WS_CHILD ¶ WS_VISIBLE, 6, 6, 195, 81
CONTROL "",1,"STATIC",SS_BLACKFRAME ¶WS_CHILD ¶WS_VISIBLE, 13,57,180,1
LTEXT "CMCCODE Version:",-1,15,12,72,8
LTEXT "WCodeDLL Version:",-1,15,23,72,8
LTEXT "HookDLL Version:",-1, 15, 34, 72, 8
LTEXT "Release Date:", -1, 15, 45, 72, 8
LTEXT "Memory:",-1, 15, 62, 72, 8
LTEXT "System Resources:", -1, 15, 73, 72, 8
LTEXT "",701,90,12,105,8
LTEXT "",702,90,23,105,8
LTEXT "",703,90,34,105,8
LTEXT "",704,90,45,105,8
LTEXT "",705,90,62,105,8
LTEXT "",706,90,73,105,8
EXTINFO DIALOG LOADONCALL MOVEABLE DISCARDABLE 76,55,207,111
STYLE DS MODALFRAME \ WS POPUP \ WS CAPTION \ WS SYSMENU
CAPTION "More About CMCCODE"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",2,81,93,45,13
CONTROL "",-1, "STATIC", SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 6,6,195,81
CONTROL "",-1, "STATIC",SS_BLACKFRAME ¶ WS CHILD ¶ WS_VISIBLE, 13,57,180.1
LTEXT "CMCCODE Version:",-1, 15, 12, 72, 8
LTEXT "WCodeDLL Version:",-1, 15, 23, 72, 8
LTEXT "HookDLL Version:", -1, 15, 34, 72, 8
LTEXT "Release Date:", -1, 15, 45, 72, 8
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LTEXT "Memory:",-1, 15, 62, 72, 8
LTEXT "System Resources:", -1, 15, 73, 72, 8
LTEXT "",701,90,12,105,8
LTEXT "",702,90,23,105,8
LTEXT "",703,90,34,105,8
LTEXT "",704,90,45,105,8
LTEXT "",705,90,62,105,8
LTEXT "",706,90,73,105,8
FILE O ZIP DIALOG LOADONCALL MOVEABLE DISCARDABLE 40,20,202,130
STYLE DS MODALFRAME \ WS_OVERLAPPED \ \ WS_CAPTION \ \ WS_SYSMENU
FONT 8, "Helv"
EDITTEXT 100,42,6,98,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
DEFPUSHBUTTON "OK",1, 146,5,50,14
LISTBOX 102,6,44,64,82,LBS STANDARD $\(\text{LBS}\) MULTIPLESEL $\(\text{LBS}\) EXTENDEDSEL $\(\text{WS}\)_TABSTOP
LISTBOX 103,76,44,64,82,LBS STANDARD \ WS_TABSTOP
PUSHBUTTON "&All Files", 104, 146, 45, 50, 14
PUSHBUTTON "cc &Clipboard", 105, 146, 63, 50, 14
CHECKBOX "&ZIP First", 106, 146, 81, 51, 12, BS AUTOCHECKBOX ¶WS TABSTOP
PUSHBUTTON "Cancel" 2, 146,23,50,14
LTEXT "File&name:",-1,6,8,36,10
LTEXT "Directory:",-1, 6, 20, 36, 10
LTEXT "",101,42,20,98,10
LTEXT "&Files:",-1,6,32,64,10
LTEXT "&Directories:",-1,76,32,64,10
PUSHBUTTON "&Options...",107, 146, 105, 50, 14
FILE OPEN DIALOG LOADONCALL MOVEABLE DISCARDABLE 40,20,202,130
STYLE DS MODALFRAME ¶WS_OVERLAPPED ¶WS_CAPTION ¶WS_SYSMENU
FONT 8, "Helv"
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EDITTEXT 100,42,6,98,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
DEEPUSHBUTTON "OK",1, 146,5,50,14
LISTBOX 102,6,44,64,82,LBS_STANDARD ¶WS_TABSTOP
LISTBOX 103,76,44,64,82,LBS STANDARD \ WS_TABSTOP
PUSHBUTTON "Cancel" 2, 146, 23, 50, 14
LTEXT "File&name:",-1, 6, 8, 36, 10
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LTEXT "Directory:",-1, 6, 20, 36, 10
LTEXT "",101,42,20,98,10
LTEXT "&Files:",-1,6,32,64,10
LTEXT "&Directories:",-1,76,32,64,10
HEADER_TYPE DIALOG LOADONCALL MOVEABLE DISCARDABLE 93,54,111,81
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Header Type"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,6,63,45,13
RADIOBUTTON "&Wincode Standard", 224, 12, 10, 87, 12, BS_AUTORADIOBUTTON \[ \Psi_GROUP \[ \Psi_TABSTOP \]
RADIOBUTTON "&MIME Conformant", 225, 12, 25, 87, 12, BS_AUTORADIOBUTTON ¶WS_TABSTOP
PUSHBUTTON "Cancel" 2, 60, 63, 45, 13
GROUPBOX "",106,6,2,99,54,BS_GROUPBOX
CHECKBOX "&Guess Content-Type", 226, 12, 40, 87, 12, BS_AUTOCHECKBOX ¶WS_TABSTOP
HOOK APP DIALOG LOADONCALL MOVEABLE DISCARDABLE 10,74,277,117
STYLE DS-MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS_SYSMENU
CAPTION "Hook Application Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1, 222, 9, 45, 13
EDITTEXT 901,75,6,135,12,ES AUTOHSCROLL \WS_BORDER \WS_TABSTOP
EDITTEXT 902,75,24,120,12,ES AUTOHSCROLL \[ WS_BORDER \[ WS_TABSTOP \]
PUSHBUTTON "?" 903, 198, 24, 12, 13
CHECKBOX "&Case Sensitive Application Name", 904, 80, 45, 126, 12, BS AUTOCHECKBOX ¶WS_TABSTOP
CHECKBOX "H&ide Wincode when Hooked", 906, 80, 69, 126, 12, BS_AUTOCHECKBOX \ \ WS_TABSTOP
CHECKBOX "&Auto-Hook Wincode on Startup", 907, 80, 81, 126, 12, BS AUTOCHECKBOX ¶WS_TABSTOP
PUSHBUTTON "&Tune..."910,222,97,45,13
PUSHBUTTON "Cancel" 2, 222, 27, 45, 13
PUSHBUTTON "&Default", 908, 222, 45, 45, 13
PUSHBUTTON "&Help",909,222,63,45,13
LTEXT "Application Name:",-1,7,10,66,8
LTEXT "Application Path:",-1,7,27,66,8
CONTROL "",-1, "STATIC",SS_BLACKFRAME ¶WS_CHILD ¶WS_VISIBLE, 75,42,135,54
ICON "THOOK_ICON", -1, 27, 69, 18, 20
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LTEXT "Advanced Options:", -1, 7, 45, 66, 8
LTEXT "If you are having problems Hooking an application, try this ----¢", -1, 7, 100, 213, 8
HOOK TUNE DIALOG LOADONCALL MOVEABLE DISCARDABLE 81,74,151,96
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "Hook Tuning"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,24,78,45,13
CHECKBOX "&Create Window List on Hook", 911, 12, 11, 126, 12, BS AUTOCHECKBOX ¶WS_TABSTOP
CHECKBOX "&Skip Opening Window", 912, 12, 25, 90, 12, BS_AUTOCHECKBOX \[ \Psi \] WS_TABSTOP
EDITTEXT 913, 108, 39, 30, 12
COMBOBOX 914,108,54,30,39,CBS DROPDOWNLIST ¶WS TABSTOP
PUSHBUTTON "Cancel" 2, 81, 78, 45, 13
CONTROL "",-1, "STATIC", SS BLACKFRAME \ WS CHILD \ WS_VISIBLE, 6, 6, 138, 66
LTEXT "Set Hook Delay (seconds):", -1, 12, 42, 93, 8
LTEXT "Set Hook Menu Range:",-1,12,57,93,8
MEMORY SWAP DIALOG LOADONCALL MOVEABLE DISCARDABLE 63,65,132,66
STYLE DS MODALFRAME ¶WS POPUP ¶WS CAPTION ¶WS SYSMENU
CAPTION "CMCCODE - Memory Swap"
FONT 8, "MS Sans Serif"
EDITTEXT 101,37,30,28,12,ES AUTOHSCROLL \ WS BORDER \ WS TABSTOP
DEFPUSHBUTTON "OK",1, 12, 48, 45, 13
PUSHBUTTON "Cancel" 2, 75, 48, 45, 13
CTEXT "Enter a memory allocation swap",-1,6,7,120,9
CTEXT "value (range + 256KB to 16MB):",-1, 6, 16, 120, 9
LTEXT "KBytes",-1,68,32,27,8
OP TOOLBAR DIALOG LOADONCALL MOVEABLE DISCARDABLE 102,57,104,112
STYLE WS_POPUP \ WS_VISIBLE \ WS_CAPTION \ WS_SYSMENU
CAPTION "Options Toolbar"
FONT 8, "MS Sans Serif"
PUSHBUTTON "&Encode..." 1001,-1,0,105,14
PUSHBUTTON "&Decode..." 1002,-1, 14, 105, 14
PUSHBUTTON "&Wincode..."1003,-1,28,105,14
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PUSHBUTTON "W&insort...",1004,-1, 42, 105, 14
PUSHBUTTON "&Viewer..."1005,-1,56,105,14
PUSHBUTTON "&ZIP/UNZIP...",1006,-1,70,105,14
PUSHBUTTON "&Hook App...",1007,84,105,14
PUSHBUTTON "E&xit Toolbar", 2, -1, 98, 105, 14
ORDER_HELP DIALOG LOADONCALL MOVEABLE DISCARDABLE 61,21,228,258
STYLE DS MODALFRAME ¶WS POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "Ordering the Help file"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "THANKS!",2,77,240,75,13
LTEXT "To order the Wincode Help file, send $5.00(U.S. Dollars) to: -1, 13, 9, 204, 8
CTEXT "CMC Interactive®xAE", -1, 58, 21, 114, 8
CTEXT "8S. Michigan Ave.",-1, 58, 29, 114, 8
CTEXT "Suite 2003",-1,58,37,114,8
CTEXT "Chicago, IL 60606", -1, 58, 45, 114, 8
LTEXT "This price and address are guaranteed until 6/1/95. If you",-1, 13, 57, 204, 8
LTEXT "wishto obtain the Help file after this date, please e-mail", -1, 13, 65, 204, 8
LTEXT "first for updated information. Make checks payable to:",-1,13,73,204,8
CTEXT "CMC Interactive", -1, 13, 83, 204, 8
LTEXT "By ordering Help, you obtain the following:",-1, 13, 112, 204, 8
LTEXT " 1)The most recent version of Wincode with the Help file",-1, 13, 122, 204, 8
LTEXT "2)Directly e-mailed pre-releases of future versions of",-1, 13, 130, 204, 8
LTEXT " Wincode and the Help file",-1,13,138,204,8
LTEXT " 3)E-mail (only) technical support", -1, 13, 146, 204, 8
LTEXT "All files will be ELECTRONICALLY MAILED to you. If you",-1, 13, 162, 204, 8
LTEXT "wish to have something sent through the US Postal service,",-1, 13, 170, 204, 8
LTEXT "please include a Self-Addressed-STAMPED Disk Mailer AND", -1, 13, 178, 204, 8
LTEXT "Disk with your order. Multi-User pricing is available.",-1, 13, 186, 204, 8
LTEXT " Main Internet Address: cmcinter@suba.com", -1, 13, 203, 204, 8
LTEXT " America Online: cmcinter@aol.com", -1, 13, 214, 204, 8
CQNTROL "",1,"STATIC",SS_BLACKFRAME ¶WS_CHILD ¶WS_VISIBLE, 6,6,216,228
ICON "MAIN ICON",-1,25,27,18,20,SS_ICON ¶WS_GROUP
ICON "ORDER HELP ICON", -1, 187, 27, 18, 20, SS_ICON ¶ WS_GROUP
CTEXT "PLEASE" include a LEGIBLE E-MAIL address with all orders.",-1, 13, 98, 204, 8
CONTROL "",-1, "STATIC",SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 16, 158, 198, 1
CONTROL "",-1, "STATIC",SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 16,93,198,1
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CONTROL "",-1, "STATIC", SS_BLACKFRAME \ WS_CHILD \ WS_VISIBLE, 16, 109, 198, 1
SEQUENCE DIALOG LOADONCALL MOVEABLE DISCARDABLE 27, 37, 237, 147
STYLE DS_MODALFRAME ¶WS_POPUP¶WS_CAPTION ¶WS_SYSMENU
CAPTION "Concatenate Files"
FONT 8, "MS Sans Serif"
EDITTEXT 750, 6, 16, 168, 12
DEFPUSHBUTTON "OK",1, 183,9, 45, 13
PUSHBUTTON "-¢ &Encode", 756, 183, 67, 45, 13
PUSHBUTTON "-¢ &Decode", 757, 183, 85, 45, 13
LISTBOX 751,6,44,64,82,LBS STANDARD ¶WS TABSTOP
PUSHBUTTON "-¢", 752, 77, 65, 18, 13
PUSHBUTTON "_-",753,77,88,18,13
LISTBOX 754,111,44,64,82,LBS_STANDARD \PWS_TABSTOP
PUSHBUTTON "Cancel",2, 183, 27, 45, 13
PUSHBUTTON "&Help",755,183,45,45,13
LTEXT "Concatenate all files into:",-1,6,6,87,8
LTEXT "Files:",-1, 6, 33, 63, 8
LTEXT "Sequence:",-1, 111, 33, 63, 8
CTEXT "1",-1,99,45,10,8
CTEXT "2",1,99,53,10,8
CTEXT "3",-1,99,61,10,8
CTEXT "4",-1,99,69,10,8
CTEXT "5",1,99,77,10,8
CTEXT "6",-1,99,85,10,8
CTEXT "7",-1,99,93,10,8
CTEXT "8",-1,99,101,10,8
CTEXT "9",-1,99,109,10,8
RTEXT "..."-1,99,117,10,8
LTEXT "Status:",-1, 6, 132, 27, 8
LTEXT "",758,36,132,195,8
PUSHBUTTON "¢¢", 759,77,45,18,13
PÜSHBUTTON "__",760,77,109,18,13
LTEXT "Count:",-1, 183, 118, 24, 8
LTEXT "",761,210,118,21,8
LTEXT "File",-1, 183, 109, 48, 8
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WIN_CONFIG DIALOG LOADONCALL MOVEABLE DISCARDABLE 25,21,267,186
STYLE DS MODALFRAME ¶WS_POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "CMCCODE Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,213,9,45,13
CHECKBOX "C&reate Report File", 401, 12, 9, 78, 12, BS_AUTOCHECKBOX \ \ WS_TABSTOP
CHECKBOX "St&art as Icon", 402, 12, 23, 78, 12, BS_AUTOCHECKBOX ¶WS_TABSTOP
CHECKBOX "A&lwaysOn Top", 405, 93, 9, 75, 12, BS AUTOCHECKBOX \ \ WS TABSTOP
CHECKBOX "Close When Do&ne", 406, 93, 23, 75, 12, BS-AUTOCHECKBOX \[ \text{WS_TABSTOP} \]
CHECKBOX "&Memory Swapping", 407, 93, 37, 75, 12
CHECKBOX "W&insort First", 408, 93, 51, 75, 12, BS_AUTOCHECKBOX ¶ WS_TABSTOP
COMBOBOX 409,117,72,54,39,CBS_DROPDOWNLIST ¶WS VSCROLL ¶WS TABSTOP
COMBOBOX 410,117,87,54,39,CBS_DROPDOWNLIST \WS_VSCROLL \WS_TABSTOP
EDITTEXT 411,12,114,141,9,ES_AUTOHSCROLL \[ NOT WS BORDER \[ \] WS TABSTOP
PUSHBUTTON "?",412,156,110,12,13
EDITTEXT 413,15,156,148,21,ES_MULTILINE \WS_BORDER \WS_VSCROLL \WS_TABSTOP
RADIOBUTTON "&Wincode Default", 414,183,94,69,12,BS AUTORADIOBUTTON \[ \Psi \ WS \ GROUP \[ \Psi \ WS \ TABSTOP \]
RADIOBUTTON "&Custom:",415,183,109,39,12,BS AUTORADIOBUTTON ¶WS TABSTOP
EDITTEXT 416,224,109,30,12
RADIOBUTTON "&Standard (Default)", 417, 183, 146, 75, 12, BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RADIOBUTTON "Cus&tom:",418,183,163,39,12,BS AUTORADIOBUTTON \[ \WS_TABSTOP \]
EDITTEXT 419,224,163,30,12
CHECKBOX "DOS Attri&butes", 404, 12, 51, 78, 12, BS_AUTOCHECKBOX \ \ WS_TABSTOP
PUSHBUTTON "Cancel", 2, 213, 27, 45, 13
PUSEBUTTON "&Defaults", 420, 213, 45, 45, 13
PUSHBUTTON "&Help",421,213,63,45,13
GROUPBOX "Working Directory", 103, 6, 102, 165, 24, BS GROUPBOX
LTEXT "Enter sixty-four valid ASCII characters.", -1, 15, 145, 132, 9
CONTROL "",-1, "STATIC", SS BLACKFRAME \ WS CHILD \ WS VISIBLE, 6, 6, 165, 60
GROUPBOX "Mode",101,177,81,84,45,BS GROUPBOX
GROUPBOX "Line Length", 102, 177, 130, 84, 51, BS GROUPBOX
GROUPBOX "Code Table", -1, 6, 130, 165, 51, BS_GROUPBOX
LTEXT "Interactive Mode Setting:",-1,6,90,90,8
LTEXT "Sound Effects Setting:",-1,6,76,81,8
WNS CONFIG DIALOG LOADONCALL MOVEABLE DISCARDABLE 22,38,255,159
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STYLE DS_MODALFRAME ¶WS_POPUP ¶WS_CAPTION ¶WS_SYSMENU
CAPTION "Winsort Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1,201,9,45,13
EDITTEXT 501,42,19,126,12,ES AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
EDITTEXT 502,42,35,126,12,ES_AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
CHECKBOX "&Use Custom BEGIN/END", 503, 12, 54, 123, 12, BS_AUTOCHECKBOX ¶WS_TABSTOP
EDITTEXT 504, 12, 93, 117, 9, ES AUTOHSCROLL NOT WS_BORDER WS_TABSTOP
PUSHBUTTON "?",505,132,89,12,13
EDITTEXT 506,12,121,117,9,ES AUTOHSCROLL \[ NOT WS BORDER \[ \] WS_TABSTOP
PUSHBUTTON "?",507,132,117,12,13
CHECKBOX "Execute Winsort in Silent & Mode", 508, 9, 140, 138, 12, BS AUTOCHECKBOX ¶WS TABSTOP
RADIOBUTTON "&Standard Winsort", 509, 159, 95, 75, 12, BS AUTORADIOBUTTON \( \Psi \) WS_GROUP \( \Psi \) WS_TABSTOP
RADIOBUTTON "Flush &Left ONLY", 510, 159, 110, 75, 12, BS AUTORADIOBUTTON \( \) WS_TABSTOP
RADIOBUTTON "Flush Left and Sort", 511, 159, 125, 75, 12, BS AUTORADIOBUTTON ¶ WS TABSTOP
EDITTEXT 512,216,139,24,12
PUSHBUTTON "Cancel" 2, 201, 27, 45, 13
PUSHBUTTON "&Defaults", 513, 201, 45, 45, 13
PUSHBUTTON "&Help",514,201,63,45,13
LTEXT "END:",-1, 12, 38, 24, 8
LTEXT "BEGIN:",-1, 12, 22, 27, 8
GRQUPBOX "Sort Options", 101, 153, 81, 96, 72, BS_GROUPBOX
GROUPBOX "Custom BEGIN/END", -1,6,6,168,66,BS_GROUPBOX
GROUPBOX "Winsort Executable", 102,6,81,141,24,BS_GROUPBOX
GROUPBOX "Winsort Directory", 103, 6, 109, 141, 24, BS_GROUPBOX
LTEXT "Flush # Chars:",-1, 159, 141, 54, 8
Z CONFIG DIALOG LOADONCALL MOVEABLE DISCARDABLE 27,24,240,151
STYLE DS MODALFRAME \ WS_POPUP \ WS_CAPTION \ WS_SYSMENU
CAPTION "ZIP/UNZIP Options"
FONT 8, "MS Sans Serif"
DEFPUSHBUTTON "OK",1, 186,9,45,13
EDITTEXT 601,69,6,90,12,ES AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
PUSHBUTTON "?",602,162,5,12,13
EDITTEXT 603,69,23,105,12,ES_AUTOHSCROLL ¶WS_BORDER ¶WS_TABSTOP
EDITTEXT 604,69,39,90,12,ES AUTOHSCROLL \ WS BORDER \ WS TABSTOP
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PUSHBUTTON "?",605,162,38,12,13
EDITTEXT 606,69,55,105,12,ES AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
EDITTEXT 607, 102, 71, 33, 12
RADIOBUTTON "Def&ault to location of input file",608, 12, 100, 132, 12, BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RADIOBUTTON "User select &on UNZIP", 609, 12, 114, 132, 12, BS AUTORADIOBUTTON \( \Psi \) WS TABSTOP
RADIOBUTTON "&Set: ".610.12.128.27.12.BS AUTORADIOBUTTON ¶WS TABSTOP
EDITTEXT 611,42,128,99,12,ES AUTOHSCROLL ¶WS BORDER ¶WS TABSTOP
PUSHBUTTON "?".612,144,128,12,13
RADIOBUTTON "&Normal",613,171,100,57,12,BS AUTORADIOBUTTON ¶WS GROUP ¶WS TABSTOP
RADIOBUTTON "&Minimized",614,171,114,57,12,BS AUTORADIOBUTTON ¶WS TABSTOP
RADIOBUTTON "Hidd&en",615,171,128,57,12,BS_AUTORADIOBUTTON ¶WS_TABSTOP
PUSHBUTTON "Cancel" 2, 186, 27, 45, 13
PUSHBUTTON "&Defaults", 616, 186, 45, 45, 13
PUSHBUTTON "&Help",617,186,63,45,13
GROUPBOX "UNZIPped File(s) Directory", 101, 6, 87, 153, 57, BS GROUPBOX
GROUPBOX "Show Options", 102, 165, 87, 69, 57, BS GROUPBOX
LTEXT "ZIP Filename:", -1, 6, 10, 57, 8
LTEXT "ZIP Param(s):", -1, 6, 26, 57, 8
LTEXT "UNZIP Filename:",-1,6,42,60,8
LTEXT "UNZIP Param(s):", -1, 6, 58, 60, 8
LTEXT "Extension for ZIPped Files:",-1,6,74,93,8
ZIP NAME DIALOG LOADONCALL MOVEABLE DISCARDABLE 35,31,132,60
STYLE DS MODALFRAME \ WS_POPUP \ WS_CAPTION \ WS_SYSMENU
CAPTION "CMCCODE - ZIP Filename"
FONT 8, "MS Sans Serif"
§ ::
EDITTEXT 101,31,23,51,12,ES AUTOHSCROLL \( \text{WS BORDER \( \text{WS TABSTOP} \)
DEFPUSHBUTTON "OK",1,12,42,45,13
PUSHBUTTON "Cancel", 2, 75, 42, 45, 13
CTEXT "Enter a filename for the ZIP archive:",-1,4,7,123,9
LTEXT "",102,84,25,24,8
STRINGTABLE LOADONCALL MOVEABLE DISCARDABLE
101. "Encode a data file..."
102 Decode a data file...'
1033 Concatenate multiple files into a single file (specific ordering)..."
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105, "Clean Wincode directories by deleting files..."
106, "Set Encode options..."
107, "Set Decode options..."
108, "Set General Wincode options..."
109, "Set Winsort options..."
110, "Selecta Report File viewer..."
111, "Set PKZIP/UNZIP options..."
STRINGTABLE LOADONCALL MOVEABLE DISCARDABLE
112, "Set the Application Hook options..."
113, "Wincode Help Contents..."
114, "Help file Keyword Search..."
115, "Help on using Windows Help files..."
116, "Wincode Internet Frequency Asked Questions..."
117, "Legal Copyrights for files..."
118, "Information on ordering the Wincode Help file..."
119, "Version and Author information..."
121, "Set Wincode Interactive Drag & Drop Mode..."
122, "Hook the Wincode Menu into a selected application..."
123, "Select the Options Toolbar to configure Wincode..."
124 "Exitthe Wincode program..."
125 Stop the current Operation..."
126 Quit the entire Operation..."
127 Encode, Decode, Exit..."
STRINGTABLE LOADONCALL MOVEABLE DISCARDABLE
§ 22 Concat, View, Clean, Drag&Drop Mode, Hook..."
129 Encode, Decode, Wincodt, Winsort, Viewer, PKZIP/UNZIP, Hook App..."
130 Help and related information..."
† :: CLEAN_DOWN ICON LOADONCALL MOVEABLE DISCARDABLE
                                       COPYRIGHT - 1996 PLANET GRAPHICS, INC.
```

104, "Viewa Wincode Report file..."

The following is a second software listing for the catcher program of the invention.

```
File:
                   npshell.cpp
       Advanced Features:
                   * HyperCD HTML cOmmnad (H2O) set
                   * stream capture
                   * encryption/decryption
                   * file handling
                   * multimedia io
       Programmer: Plugin Empty Shell,
                                               Netscape
                   Encryption/Decryption,
                                              Planet Graphics
                   Multimedia IO
                                               Planet Graphics
11
                   HyperCD
11
// The architecture of HyperCD allows for
// authorized and secure rendering of encrypted multimedia
// from the fastest link. Such media may reside on a HyperCD
// CD-ROM, a server thru broad-band fiber optics or satelite streaming
// for speedy access. The encrypted HyperCD media is protected
// by crippling the media. Only authorized user can obtain
// trigger/keys from the server to unlock the HyperCD media.
//
11
//--
        // The shell file defines a "shell" plugin that can be used as the // besis for a real plugin. This shell just provides empty
// implementations of all functions that the plugin can implement
// that will be called by Netscape (the NPP_xxx methods defined in
// mpapi.h).
// 遺
---
   Ē
#ifndef _WIN32
#define _WIN32
#endif
#ifndef _NPAPI_H_
#include "npapi.h"
#include "plgwnd.h"
#include "CHyperCD.h"
#endif
// mmio
#include <mmsystem.h>
#include <qtw.h>
#include <string.h>
#include <io.h>
#include <fcntl.h>
#include <sys/stat.h>
#include "xsystem.h"
LRESULT CALLBACK WndProc (HWND hWnd, UINT message, WPARAM wParam, LPARAM 1Param);
//-----
// SysI0:
void SysIO(char *szSYSFILE)
char
       szFileContent[MAXDIRCHAR];
char
       szMsg[MAX_STR*100];
       hFile, nRead, nFileLength; nLoc=0,i,ret;
int
int
char
       *pTemp;
```

```
nFileLength=(int)_filelength( h );
nRead = _read(hFile, szFileContent, (unsigned int )nFileLength );
_close( hFile );
    szFileContent[nFileLength-2] ='\0';
    nFileLength -= 2;
    SysFileControl(szFileContent,nFileLength, DEFAULT);
    pTemp=szFileContent;
    for(i=nDirItem=0;i<MAXDIRITEM;i++)</pre>
        ret=sscanf(pTemp,"%s",szMsg);
        if (ret ==0)
            continue;
        else if (ret == EOF)
            break;
        //not newline char
        if((strcmp(szMsg,"\n") l=0) && (strlen(szMsg)>0))
            strcpy(Dir[nDirItem],szMsg);
            nDirItem++;
        nLoc=strcspn(pTemp, "\n");
        pTemp = pTemp+nLoc+1;
        if(pTemp > szFileContent+nFileLength)
            break;
else,
    WessageBox(NULL,MISSDBFILE, "Error",MB_OK);
    return;
    Ü
// NPP_Initialize:
NPError NPP_Initialize(void)
   return NPERR_NO_ERROR;
   // 随P_Shutdown:
void NPP_Shutdown (void)
    return;
// NPP_New:
NPError NP_LOADDS
NPP_New(NPMIMEType pluginType,
                 NPP instance,
                 uint16 mode,
                 int16 argc.
                 char* argn[],
                 char* argv[],
                 NPSavedData* saved)
{
    if (instance == NULL)
        return NPERR_INVALID_INSTANCE_ERROR;
    instance->pdata = NPN_MemAlloc(sizeof(PluginInstance));
    PluginInstance* This = (PluginInstance*) instance->pdata;
    if (This != NULL)
```

{

```
This->window = NULL;
This->cHypercd = new CHyperC
This->mode = mode;
This->bAutoStart = FALSE:
This->bLoop = FALSE;
int idx;char msg[MAX_STR], sSYSFILE[MAX_STR];
strcpy(msg,"");
strcpy(sSYSFILE,SYSFILE);
char *p1,*p2, cd_title[MAX_STR];
{\ensuremath{\prime\prime}} parsing the web page embed tag and set hypercd tags
for ( idx =0; idx<argc; idx++) {
    if(strcmp(strupr(argn[idx]),"SRC")==0)
        p2=strstr(strupr(argv[idx]),".Q");
        1f(p2==NULL)
            MessageBox(NULL.argv[idx], "Missing .q in file name", MB_OK);
            return 0;
        while((*p2 != '_' )&&(p2> argv[idx]))
        if(*p2 == '_')
             p1=--p2;
             while((*p1 != '\' | *p1 != '\')\&\&(p1> argv[idx]))
                 p1--;
             for(int 1=0;i<=(int)(p2-p1);i++)
                 cd_title[i]=*(p1+1);
             cd_title[i]='\000';
             strcpy(sSYSFILE, "c:\hypercd\\");
             strcat(sSYSFILE.cd_title);
             strcat(sSYSFILE,".xdb");
             break;
        }
    }
SysIO(sSYSFILE);
for (idx =0; idx<argc; idx++) {</pre>
    if (!strcmpi(argn[idx],"autostart")) {
        if (!strcmpi(argv[idx],"true")) {
    This->bAutoStart = TRUE;
             PGZInfo.tag |= PGZEMBED_AUTO_START;
        }
    }
    if (!strcmpi(argn[idx],"loop")) {
        if (!strcmpi(argv[idx]."true")) {
         This->bLoop = TRUE;
         }
    if (!strcmp1(argn[idx], "speaker")) {
        if (!strcmp1(argv[idx], "off")) {
         PGZInfo.tag | = PGZEMBED_NO_SPEAKER;
         }
    Featres to be implemented
    other HyperCD HTML cOmmnad (H2O) set:
    botton=true/false
    desolve/etc
instance->pdata = This; // save my data pointer in the instance pdata pointer
                           \prime\prime\prime this will be passed back to me in all calls so that I
                           // can extract it later
return NPERR_NO_ERROR;
```

```
else
       return NPERR_OUT_OF_MEMORY_ERROR;
}
static void UnSubclass(PluginInstance *This)
    WNDPROC
                OldWndProc;
   WNDPROC*
                lplpfn = This->window->GetSuperWndProcAddr();
    if (!*lplpfn)
       ASSERT(0);
       return;
    }
    // Set the original window procedure
    OldWndProc = (WNDPROC)::SetWindowLong( This->window->m_hWnd,
                                            GWL_WNDPROC, (LONG) *lplpfn );
    // A subclassed window's procedure is always AfxWndProc.
    // If this is not TRUE, then it's not a subclassed window.
    if ( OldWndProc != AfxWndProc )
        ASSERT(0);
static void KillHyperCDWindow(PluginInstance *This)
   (This->cHypercd) {
        This->cHypercd->Close();
        delete This->cHypercd;
       This->cHypercd = NULL:
   1
        // deallocate all QT etc resources
        CleanupMultimedia();
   UnSubclass(This);
  if (This->window) {
        This->window->Detach();
  J
        delete This->window:
        This->window = NULL;
// NPP_Destroy:
NPError NP_LOADDS
NPP_Destroy(NPP instance, NPSavedData** save)
{
    if (instance == NULL)
        return NPERR_INVALID_INSTANCE_ERROR;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    // Note: If desired, call NP_MemAlloc to create a
    // NPSavedData structure containing any state information
    // that you want restored if this plugin instance is later
    // recreated.
    //
```

```
if (This != NULL)
        KillHyperCDWindow(This);
       NPN_MemFree(instance->pdata);
    }
   return NPERR_NO_ERROR;
}
// NPP_SetWindow:
//-----
NPError NP_LOADDS
NPP_SetWindow(NPP instance, NPWindow* np_window)
    if (instance == NULL)
        return NPERR_INVALID_INSTANCE_ERROR;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    // Note: Before setting fWindow to point to the
    // new window, you may wish to compare the new window
    // info to the previous window (if any) to note window
    // size changes, etc.
    4
   i@ (!np_window)
       return NPERR_GENERIC_ERROR;
    =
       (!instance)
        return NPERR_INVALID_INSTANCE_ERROR;
        return NPERR_GENERIC_ERROR;
   gif (!np_window->window && !This->window) // spurious entry
        return NPERR_NO_ERROR;
   If (Inp_window->window && This->window)
        // window went away
        KillHyperCDWindow(This);
        return NPERR_NO_ERROR;
   f (!This->window && np_window->window)
        // First time in -- no window created by plugin yet
        This->window = (CPluginWindow *) new CPluginWindow();
        if (!This->window->SubclassWindow((HWND)np_window->window))
        {
            MessageBox(NULL, "SubclassWindow Failed", "HyperCD", MB_OK);
            return NPERR_GENERIC_ERROR;
        // Save This pointer in window class member variable..this lets the
        // window message handling have access to the data pointer easily
        This->window->StoreData(This);
    }
    // resize or moved window (or newly created)
    This->window->InvalidateRect(NULL);
    This->window->UpdateWindow();
    return NPERR_NO_ERROR;
}
// NPP_NewStream:
NPError NP_LOADDS
NPP_NewStream(NPP instance,
                            NPMIMEType type,
```

```
NPStream tream,
                             uint16 *stype)
    if (instance == NULL)
        return NPERR INVALID INSTANCE_ERROR;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    *stype = NP_ASFILE:
    return NPERR_NO_ERROR;
}
int32 STREAMBUFSIZE = OXOFFFFFFF;
                                      // If we are reading from a file in NPAsFile
                                      // mode so we can take any size stream in our
                                      // write call (since we ignore it)
// NPP_WriteReady:
int32 NP LOADDS
NPP_WriteReady(NPP instance, NPStream *stream)
    if (instance != NULL)
    PluginInstance* This = (PluginInstance*) instance->pdata;
return STREAMBUFSIZE; // Number of bytes ready to accept in NPP_Write()
// NPP Write:
int32 NP_LOADDS
NPP_write(NPP instance, NPStream *stream, int32 offset, int32 len, void *buffer)
   -
   ff (instance != NULL)
        PluginInstance* This = (PluginInstance*) instance->pdata;
    }
    return len;
                             // The number of bytes accepted
// NPP_DestroyStream:
NPError NP_LOADDS
NPP_DestroyStream(NPP instance, NPStream *stream, NPError reason)
    if (instance == NULL)
        return NPERR_INVALID_INSTANCE_ERROR;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    return NPERR_NO_ERROR;
}
void GetFileType(char *szFile,LPPGZInfo lpPGZInfo )
    // read PGZ file info:size, version,type, etc
```

lpPGZInfo = readPGZInfo(szFile,lpPGZInfo);

}

```
// IUProc:
LRESULT CALLBACK IOProc(LPMMIOINFO lpMMIOInfo, UINT uMessage, LPARAM lParam1, LPARAM lParam2)
    static BOOL alreadyOpened = FALSE;
   PGZINFO PGZInfo;
   PGZInfo.p1=1Param1;
   PGZInfo.p2=1Param2;
   switch (uMessage)
        case MMIOM_OPEN:
            if (alreadyOpened)
               return 0;
            alreadyOpened = TRUE;
            // Determine the size, version, type, etc of the mm file
            GetFileType(MYFILENAME.&PGZInfo);
            PGZIO(PGZIO_OPEN, PGZInfo, lpMMIOInfo);
            return 0;
        case MMIOM_CLOSE:
            PGZIO(PGZIO CLOSE, PGZInfo, lpMMIOInfo);
            alreadyOpened = FALSE;
            return 0;
        case MMIOM_READ:
   PGZIO(PGZIO_READ, PGZInfo, lpMMIOInfo);
            return (1Param2);
        case MMIOM_SEEK:
            switch (1Param2)
    I
                case SEEK SET:
   M
                   PGZIO(PGZIO_SEEK_SET,PGZInfo, lpMMIOInfo);
   1
                   break;
   i.
                case SEEK_CUR:
   PGZIO(PGZIO_SEEK_CUR, PGZInfo, lpMMIOInfo);
   case SEEK_END:
                   PGZIO(PGZIO_SEEK_END,PGZInfo, lpMMIOInfo);
                   break;
   . Ti
            return lpMMIOInfo->lDiskOffset;
        default:
            return -1; // Unexpected msgs.
}// end of IOProc
//-----
int movPlayer(CWnd* pWnd, char * lpszCmdParam, PGZInfo pgzInfo )
    OSErr
            ret:
    LONG
            lFlags;
    STRING
            message;
    HWND
            hWnd;
    MSG
            msg;
    int
            1;
    if (pgzInfo.tflag != PZGTYPE_QTPGZ && pgzInfo.tflag != PZGTYPE_QTVIDEO)
        return 0;
    if( pgzInfo.tflag == PZGTYPE_QTPGZ)
        InstallQTPGZware();
    hWnd = pWnd->m_hWnd;
```

```
// Establish links to QuickTime Windows
if (QTInitialize (NULL))
    MessageBox (NULL, "QTInitialize failure", "Error", MB_OK);
    return 0:
// Allocate memory required for playing movies
if (EnterMovies ())
    MessageBox (NULL, "EnterMovies failure", "Error", MB_OK);
    return 0;
// Instantiate the movie
if (OpenMovieFile (lpszCmdParam, &mfMovie, OF_READ) |= noErr)
  MessageBox (NULL, "OpenMovieFile failure", "Error", MB_OK);
  return 0;
  }
ret = NewMovieFromFile (&mMovie, mfMovie, NULL, NULL, 0, NULL);
if (ret!=0)
    MessageBox (NULL, "NewMovieFromFile failure", "error", MB_OK);
ret = CloseMovieFile (mfMovie);
if (ret !=0)
    MessageBox (NULL, "CloseMovieFile failure", "Error", MB_OK);
 Instantiate the movie controller
GetMovieBox (mMovie, &rcMovie);
OffsetRect(&rcMovie, -rcMovie.left, -rcMovie.top);
mcController = NewMovieController (mMovie, &rcMovie,
    mcTopLeftMovie + mcScaleMovieToFit, (hWnd));
if ( mcController==NULL)
   MessageBox (NULL, "NewMovieController failed", "Error", MB_OK);
Make the movie paused initially
MCDoAction (mcController, mcActionPlay, 0);
// Eliminate the grow box
SetRectEmpty (&rcMovie);
MCDoAction (mcController, mcActionSetGrowBoxBounds, &rcMovie);
now set the controller to the parent
RECT recPlugin;
int left,y_value,w,h;
hWndController = GetWindow(hWnd,GW_CHILD);
SetParent(hWndController. GetParent(hWnd));
 GetWindowRect(GetParent(hWnd), &recNavigator);
 GetWindowRect(hWnd, &recPlugin);
 GetWindowRect(hWndController, &rcController);
 w=recPlugin.right-recPlugin.left;
h=rcController.bottom-rcController.top;
 left = recPlugin.left-recNavigator.left;
 y_value =recPlugin.bottom-recNavigator.top;
MoveWindow(hWndController, left,y_value,w,h,1);
 // Make the movie active
SetMovieActive (mMovie, TRUE);
 // Make the main window visible
ShowWindow (hWnd, SW_SHOW);
UpdateWindow (hWnd);
    new make controller visible
MCSetVisible(mcController, TRUE);
 // Hide the speaker button
 if(PGZInfo.tag & PGZEMBED_NO_SPEAKER)
     MCDoAction (mcController, mcActionGetFlags, (LPVOID) &lFlags);
     lFlags |= mcFlagSuppressSpeakerButton;
```

```
MCDoAction (mcController, mtionSetFlags, (LPVOID) IFlags);
       }
   // set auto start
  if(PGZInfo.tag& PGZEMBED_AUTO_START)
       LFIXED lfxRate;
       // Play the movie at the preferred rate
       lfxRate = GetMoviePreferredRate (mMovie);
       MCDoAction (mcController, mcActionPlay, (LPVOID) lfxRate);
   // controller
  OldWndProc2 = (WNDPROC)::SetWindowLong( (hWnd),GWL_WNDPROC, (LONG)WndProc );
  return 1;
// NPP_StreamAsFile:
int XtractTrigger(const char *szFile, TRIGGERINFO *pTriggerStructure)
   FILE*
           pfFileName1;
   int
         n:
       Open trigger file
   if((pfFileName1=fopen(szFile,"rb")) == NULL)
       MessageBox(NULL, "Error in trigger stream file", "Extract Trigger", MB_OK);
       return -1;
   J.
     /******* Decrypt the streamed information:
       Extract information from the trigger file
   Ŭ
       Streamed info:
   UT
       XKey
            :
                  security key
   ũ
       DKey
                   pointer to lists of uncrippling data keys.
       Counter:
                  usage counter
       MaxCounter: allowable usage,
   -1 for permanent ownership
   ****************
   XtractTrigger(pfFileName1, pTriggerStructure);
   Close trigger file
   ******************************
   fclose(pfFileName1);
   return 0;
// NPP_StreamAsFile:
void NP_LOADDS
NPP_StreamAsFile(NPP instance, NPStream *stream, const char* szStream)
    int
           nTriggerIndex, nType, nRet;
           szFile[MAX_STR].szMessage[MAX_STR];
   char
           szMsg[MAX_STR];
   char
           *pTemp, szPath[MAX_STR];
   char
    STRING
           szIniStr;
   FILE
           *pfINIFile;
    PGZINFO PGZInfo:
   TRIGGERINFO TriggerStructure;
    if (instance == NULL)
       return;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    if (This->cHypercd)
       {
```

```
//
//
                    HyperCD
// The architecture of HyperCD allows for
// authorized and secure rendering of encrypted multimedia
// from the fastest link. Such media may reside on a HyperCD
// CD-ROM, a server thru broad-band fiber optics or satelite streaming
// for speedy access. The encrypted HyperCD media is protected
// by crippling the media. Only authorized user can obtain
// trigger/keys from the server to unlock the HyperCD media.
//
//
// get the initial trigger info
XtractTrigger(szStream, &TriggerStructure);
// security exchange & obtain additional pgz-ware
Xchange(TriggerStructure, &AdditionalStructure);
// assemble pgz-ware, keys, etc
Xssemble(PGZInfo,TriggerStructure, AdditionalStructure);
// obtain HyperCD file path/name/type etc, based upon the trigger/keys etc
getHyperCDInfo(PGZInfo);
// determine the external type of the file
checkFileType(PGZInfo.sFile, &nType);
// take action
if(nType == HCD_EXE)
    if(INI_DEBUG)
        MessageBox(NULL,szFile, "Executing ...", MB_OK);
    WinExec(szFile,SW_SHOWNORMAL);
    return;
    }
// pgz type
else if(nType == HCD_PGZ)
    PreparePGZIO(szFile);
    GetFileType(szFile.&PGZInfo);
    if (PGZInfo.T==PZGTYPE_AVIVIDEO)
        This->cHypercd->Open(This->window,szMsg,"AVIVideo");
    else if(PGZInfo.T==PZGTYPE_QTVIDEO)
        nRet = movPlayer(This->window, szFile, PGZInfo);
        if(nRet == 0)//fail to open movie
            return;
else if(nType == HCD_MOV)
    nRet = movPlayer( This->window, szFile, PGZInfo);
    if (nRet == 0)//fail to open movie
        return;
    }
else if(nType == HCD_MPG)
    This->cHypercd->Open(This->window,szFile,"MPEGVideo");
    This->cHypercd->Open(This->window,szFile,"AVIVideo");
if((nType != HCD_PGZ) || (PGZInfo.T!=3))  //not MOV-PGZ
       (This->mode == NP_FULL)
    if
        This->cHypercd->Center();
    This->cHypercd->Update();
    This->cHypercd->Start(This->bLoop);
    }
```

```
void NP_LOADDS
NPP_Print(NPP instance, NPPrint* printInfo)
   if(printInfo == NULL)
                           // trap invalid parm
       return;
    if (instance != NULL)
       PluginInstance* This = (PluginInstance*) instance->pdata;
       if (printInfo->mode == NP_FULL)
        {
           // Note: If your plugin would like to take over
           // printing completely when it is in full-screen mode,
           // set printInfo->pluginPrinted to TRUE and print your
           // plugin as you see fit. If your plugin wants Netscape
           // to handle printing in this case, set printInfo->pluginPrinted
           // to FALSE (the default) and do nothing. If you do want
            // to handle printing yourself, printOne is true if the
           // print button (as opposed to the print menu) was clicked.
   // On the Macintosh, platformPrint is a THPrint; on Windows,
           // platformPrint is a structure (defined in npapi.h) containing
           // the printer name, port, etc.
           void* platformPrint = printInfo->print.fullPrint.platformPrint;
           NPBool printOne = printInfo->print.fullPrint.printOne;
           printInfo->print.fullPrint.pluginPrinted = FALSE; // Do the default
   ....
   i:
       else
               // If not fullscreen, we must be embedded
   -1
        {
            // Note: If your plugin is embedded, or is full-screen
            // but you returned false in pluginPrinted above, NPP_Print
   31
            // will be called with mode == NP_EMBED. The NPWindow
            // in the printInfo gives the location and dimensions of
            // the embedded plugin on the printed page. On the Macintosh,
            // platformPrint is the printer port; on Windows, platformPrint
            // is the handle to the printing device context.
           NPWindow* printWindow = &(printInfo->print.embedPrint.window);
            void* platformPrint = printInfo->print.embedPrint.platformPrint;
        }
// NPP HandleEvent:
// Mac-only.
               int16 NPP_HandleEvent(NPP instance, void* event)
    NPBool eventHandled = FALSE;
    if (instance == NULL)
        return eventHandled;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    // Note: The "event" passed in is a Macintosh
    // EventRecord*. The event.what field can be any of the
    // normal Mac event types, or one of the following additional
```

}

```
// types defined in npapi.h: g cusEvent, loseFocusEvent, // adjustCursorEvent. The focusevents inform your plugin
    // that it will become, or is no longer, the recepient of
    // key events. If your plugin doesn't want to receive key
    // events, return false when passed at getFocusEvent. The
    // adjustCursorEvent is passed repeatedly when the mouse is
    // over your plugin; if your plugin doesn't want to set the
    // cursor, return false. Handle the standard Mac events as
    // normal. The return value for all standard events is currently
    // ignored except for the key event: for key events, only return
    // true if your plugin has handled that particular key event.
    return eventHandled;
}
//long FAR PASCAL __export WndProc (HWND hWnd, UINT message, WPARAM wParam,LPARAM 1Param)
LRESULT CALLBACK WndProc (HWND hWnd, UINT message, WPARAM wParam, LPARAM 1Param)
    PAINTSTRUCT ps;
    LONG 1Flags;
    STRING msg;
    int i;
    RECT recPlugin;
    int left,y_value,w,h;
// Drive the movie controller
    if (MCIsPlayerMessage (mcController, hWnd, message, wParam, lParam))
        return 0;
// Process the windows message
   Switch (message)
   L.
        case WM_PAINT:
            GetWindowRect(GetParent(hWnd), &recNavigator);
   Ĩ
            GetWindowRect(hWnd, &recPlugin);
            w=recPlugin.right-recPlugin.left;
   U
            h=rcController.bottom-rcController.top;
   4
            left = recPlugin.left-recNavigator.left;
            y_value =recPlugin.bottom-recNavigator.top;
            MoveWindow(hWndController, left,y_value,w,h,1);
   if (!BeginPaint (hWnd, &ps))
   ---
                return 0;
            EndPaint (hWnd, &ps);
                return 0;
  w.
        case WM_DESTROY:
            PostQuitMessage (0);
            return 0;
   return DefWindowProc (hWnd, message, wParam, 1Param);
```

```
File:
                       CHyperCD.cpp
         Advanced Features:
             This file implements a CHyperCD class which can be used to display HyperCD movie files. This file contains some basic code
             from the Netscape plugin sdk.
#include "stdafx.h"
#include "CHyperCD.h"
#include <mmsystem.h>
#ifdef WIN32
    #include (digitalv.h)
#endif
#ifdef _DEBUG
#undef THIS_FILE
static char BASED_CODE THIS_FILE[] = __FILE__;
#endif
                                The constructor
CHyperCD::CHyperCD ()
    mOpen = FALSE;
    malaying = FALSE:
    mDeviceID = 0;
    mErrorCode = 0;
    mMCIErrorCode = OL;
CHyperCD::~CHyperCD ()
    jed.
    1
This function opens the HyperCD movie file for playback and display the first
frame. It requires the HyperCD movie file name and a pointer to the window to draw into
BOOL CHyperCD::Open (CWnd *pWnd, CString Filename, CString Type)
     DWORD RetCode;
    MCI_ANIM_OPEN_PARMS OpenParms;
    MCI_ANIM_WINDOW_PARMS WindowParms;
     Close any device that is already open.
     if (mDeviceID) {
         Close ();
     // Open a device for playback.
    OpenParms.dwCallback = NULL;
OpenParms.wDeviceID = 0;
    OpenParms.lpstrDeviceType = Type;
    OpenParms.lpstrElementName = Filename.GetBuffer (1);
    OpenParms.lpstrAlias = "HyperCD":// can use an array of aliases
OpenParms.dwStyle = WS_CHILD | WS_VISIBLE;
    OpenParms.hWndParent = pWnd->m_hWnd;
DWORD flags=(DWORD) MCI_OPEN_ELEMENT | MCI_ANIM_OPEN_PARENT | MCI_ANIM_OPEN_WS;
     if (Type == "AVIVideo" || Type == "QTWVideo" || Type == "MPEGVideo")
```

```
flags | = MCI_OPEN_TYPE; if (RetCode = mciSendCommand(0, SI_OPEN, flags, (DWORD) (LPVOID) & uParms)){
       mMCIErrorCode = RetCode;
       char szBuf[256];
       mciGetErrorString(RetCode,szBuf,256);
       char msg[200];
strcpy(msg, "Error Opening : "); strcat(msg, Filename);
       MessageBox (NULL, szBuf, msg, MB_OK);
       return FALSE;
   // The device was opened, get the device ID.
   mDeviceID = OpenParms.wDeviceID;
   WindowParms.dwCallback = NULL;
   WindowParms.hWnd = pWnd->m_hWnd;
   WindowParms.nCmdShow = SW_SHOW;
   WindowParms.lpstrText = (LPSTR) NULL;
   if (RetCode = mciSendCommand (mDeviceID, MCI_WINDOW, MCI_ANIM_WINDOW_HWND, (DWORD) (LPVOID) &WindowPar
ms)){
       mMCIErrorCode = RetCode;
       return FALSE;
   mMovieWnd = WindowParms.hWnd;
   mOpen = TRUE;
   return TRUE;
              Stop any HyperCD movie, close any open device IDs.
             ._____*/
void CHyperCD::Close (void)
   Closing a device ID will stop the video playback.
      (mDeviceID)
       mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
   mOpen = FALSE:
   mPlaying = FALSE;
void CHyperCD::Update ()
   31
   MCI_ANIM_UPDATE_PARMS UpdateParams;
   UpdateParams.dwCallback = NULL;
   UpdateParams.hDC = ::GetDC(mMovieWnd);
   if (mDeviceID)
        mciSendCommand (mDeviceID, MCI_UPDATE, MCI_ANIM_UPDATE_HDC, (DWORD) (LPVOID)&UpdateParams);
    ::ReleaseDC(mMovieWnd,UpdateParams.hDC);
   mOpen = FALSE;
   mPlaying = FALSE;
   Start the video playback.
   This function immediately returns control back to the program.
BOOL CHyperCD::Start (BOOL bLoop)
    DWORD RetCode, dwFlags = OL;
   MCI_ANIM_PLAY_PARMS PlayParms:
    Start playback using the MCI_PLAY command.
    PlayParms.dwCallback = NULL;
    PlayParms.dwFrom = PlayParms.dwTo = 0;
```

```
#1fdef WIN32
    if (bLoop) dwFlags = MCI_DGV_PLA
#endif
    if (RetCode = mciSendCommand (mDeviceID, MCI_PLAY, dwFlags, (DWORD) (LPVOID) &PlayParms)){
        mMCIErrorCode = RetCode;
        char szBuf[256];
        mciGetErrorString(RetCode,szBuf,256);
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
        mOpen = FALSE;
        return FALSE:
    mPlaying = TRUE;
    return TRUE;
BOOL CHyperCD::Realize (void)
    // plugins must realize their palette as a background palette
    DWORD RetCode =
        mciSendCommand (mDeviceID, MCI_REALIZE, MCI_ANIM_REALIZE_BKGD, NULL);
    return RetCode:
    Pause a video, different from close.
BOOL CHyperCD::Stop (void)
    DWORD RetCode;
    Stop playback by sending the MCI_PAUSE command.

IT (RetCode = mciSendCommand (mDeviceID, MCI_PAUSE mMCIErrorCode = RetCode;
       (RetCode = mciSendCommand (mDeviceID, MCI_PAUSE, OL, NULL)){
        mMCIErrorCode = RetCode;
       mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
       mOpen = FALSE;
        return FALSE;
    mPlaying = FALSE;
    return TRUE;
                     _____
 Rewind the video to the beginning and display the
 first frame.
BOOL CHyperCD::Rewind (void)
    DWORD RetCode;
    // If the video is playing you must stop it first.
    if (mPlaying)
        if (!Stop ())
            return FALSE;
    // Use the MCI_SEEK command to return to the beginning of the file.
    if (RetCode = mciSendCommand (mDeviceID, MCI_SEEK, MCI_SEEK_TO_START, (DWORD) (LPVOID) NULL)){
        mMCIErrorCode = RetCode;
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
        mOpen = FALSE;
        return FALSE;
    return TRUE;
 Forward the video to the end and display the last frame.
```

```
BOOL CHyperCD::Forward (void)
    DWORD RetCode;
    // If the video is playing you must stop it first.
    if (mPlaying)
        if (!Stop ())
            return FALSE;
    // Use the MCI_SEEK command to go to the end of the file.
    if (RetCode = mc1SendCommand (mDeviceID, MCI_SEEK, MCI_SEEK_TO_END, (DWORD) (LPVOID) NULL)){
        mMCIErrorCode = RetCode;
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
        mOpen = FALSE;
        return FALSE;
    return TRUE;
}
Forward the video by one frame.
BOOL CHyperCD::FrameForward (void)
    DWORD RetCode;
    M@I_ANIM_STEP_PARMS StepParms;
    MCI_STATUS_PARMS StatusParms:
    DWORD Length, Position:
    rac{\mathcal{P}}{\mathcal{P}} If the video is playing you must stop it first.
      (mPlaying)
        if ('Stop ())
            return FALSE;
    V/ Determine the length in frames of the file.
    StatusParms.dwItem = MCI_STATUS_LENGTH;
      (RetCode = mciSendCommand (mDeviceID, MCI_STATUS, MCI_STATUS_ITEM, (DWORD) (LPVOID) &StatusParms)){
        mMCIErrorCode = RetCode;
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
       return FALSE;
    fength = StatusParms.dwReturn;
    // Determine the current position of the file.
    StatusParms.dwItem = MCI_STATUS_POSITION;
    if (RetCode = mciSendCommand (mDeviceID, MCI_STATUS, MCI_STATUS_ITEM, (DWORD) (LPVOID) &StatusParms)){
        mMCIErrorCode = RetCode;
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
        return FALSE:
    Position = StatusParms.dwReturn;
    // If we're already at the end return.
    if (Length == Position)
        return TRUE;
    // If not already at the end use MCI_STEP to move forward one frame.
    StepParms.dwFrames = 1L;
    if (RetCode = mciSendCommand (mDeviceID, MCI_STEP, MCI_ANIM_STEP_FRAMES, (DWORD) (LPVOID) &StepParms))
        mMCIErrorCode = RetCode;
        mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
        mOpen = FALSE;
        return FALSE;
    return TRUE;
```

```
Step back the video by one frame.
BOOL CHyperCD::FrameBack (void)
   DWORD RetCode;
   MCI_ANIM_STEP_PARMS StepParms;
   // If the video is playing you must stop it first.
   if (mPlaying)
       if (!Stop ())
           return FALSE:
   // Use MCI_STEP to move back one frame.
   StepParms.dwFrames = 1L;
   if (RetCode = mc1SendCommand (mDeviceID, MCI_STEP, MCI_ANIM_STEP_REVERSE, (DWORD) (LPVOID) &StepParms)
){
       mMCIErrorCode = RetCode;
       mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
       mOpen = FALSE;
       return FALSE;
   return TRUE;
}
DWORD_CHyperCD::GetLength (void)
   DWORD RetCode;
   Z Make sure a device is open.
      (!mDeviceID)
       return 0;
    ij.
   MOI_STATUS_PARMS StatusParms;
    Determine the length in frames of the file.
   StatusParms.dwItem = MCI_STATUS_LENGTH;
   if (RetCode = mciSendCommand (mDeviceID, MCI_STATUS, MCI_STATUS_ITEM, (DWORD) (LPVOID) &StatusParms)){
       mMCIErrorCode = RetCode;
       mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
       return FALSE;
   meturn (int) StatusParms.dwReturn;
DWORD CHyperCD::GetPosition (void)
    DWORD RetCode;
    // Make sure a device is open.
    if (!mDeviceID)
        return 0:
   MCI_STATUS_PARMS StatusParms;
    // Determine the current position of the file.
   StatusParms.dwItem = MCI_STATUS_POSITION;
    if (RetCode = mciSendCommand (mDeviceID, MCI_STATUS, MCI_STATUS_ITEM, (DWORD) (LPV0ID) &StatusParms)){
       mMCIErrorCode = RetCode;
       mciSendCommand (mDeviceID, MCI_CLOSE, OL, NULL);
       return FALSE;
    return (int) StatusParms.dwReturn;
int CHyperCD::GetWidth (void)
    // Make sure a device is open.
    if (!mDeviceID)
        return 0;
    MCI_ANIM_RECT_PARMS RectParms;
```

```
window rectangle.
    // Use MCI_WHERE to get the vid
   mciSendCommand (mDeviceID, MCI_WHERE, (DWORD) MCI_ANIM_WHERE_SOURCE, (DWORD) (LPVOID) &RectParms);
    return (int) RectParms.rc.right;
int CHyperCD::GetHeight (void)
    // Make sure a device is open.
    if (!mDeviceID)
       return 0;
   MCI_ANIM_RECT_PARMS RectParms;
    // Use MCI_WHERE to get the video window rectangle.
   mciSendCommand (mDeviceID, MCI_WHERE, (DWORD) MCI_ANIM_WHERE_SOURCE, (DWORD) (LPVOID) &RectParms);
    return (int) RectParms.rc.bottom;
}
CString CHyperCD::GetErrorString (void)
    static const char *Strings[] = {
        "Could not set the position for the video in the window.",
    char ErrorBuffer[MAXERRORLENGTH];
      An error was generated from within the CHyperCD class.
      (mErrorCode == 1)
        return (CString) Strings[0];
    An error was generated from a MCI function call.
    else if (mciGetErrorString (mMCIErrorCode, (LPSTR) ErrorBuffer, MAXERRORLENGTH))
       return (CString) ErrorBuffer;
    There is no error.
    else
        return (CString) ("There is no error or the error is undefined.");
 A private function that simply positions the video window in the
 center of the parent window.
BOOL CHyperCD::Center (void)
    DWORD RetCode;
    CRect BoundsRect, MovieRect, WindowRect;
    MCI_ANIM_RECT_PARMS RectParms;
    // Use MCI_WHERE to get the video window rectangle.
    if (RetCode = mciSendCommand (mDeviceID, MCI_WHERE, (DWORD) MCI_ANIM_WHERE_SOURCE, (DWORD) (LPVOID) &R
ectParms))
        return FALSE;
    // Determine the parameters for the playback window.
    BoundsRect = RectParms.rc;
    MovieRect.left = 0;
    MovieRect.top = 0;
    MovieRect.right = MovieRect.left + BoundsRect.right;
    MovieRect.bottom = MovieRect.top + BoundsRect.bottom;
    ::GetWindowRect(mMovieWnd,&WindowRect);
    // Move the playback window.
    MoveWindow (mMovieWnd, (WindowRect.Width() - MovieRect.Width())/2,
                            (WindowRect.Height() - MovieRect.Height())/2,
                           BoundsRect.right, BoundsRect.bottom, TRUE);
    return TRUE;
```

}



File: NpWIN.cpp

```
#include "windows.h"
#include "npap1.h"
#include "npupp.h"
#define DEBUG_PROC 0
#ifdef WIN32
   #define NP_EXPORT
    #define NP_EXPORT _export
#endif
static NPNetscapeFuncs* g_pNavigatorFuncs = NULL;
11
        PLUGIN DLL entry points
        These are the Windows specific DLL entry points.
        not the "normal" plugin entry points.
        The "normal" ones are in NPSHELL.CPP
        fills in the func table used by Navigator
        to call entry points in plugin DLL.
        Note that these entry points ensure that DS
        is loaded by using the NP_LOADDS macro.
        when compiling for Win16
    U
NPErfor WINAPI NP_EXPORT NP_GetEntryPoints(NPPluginFuncs* pFuncs)
    if (pFuncs == NULL)
        return NPERR_INVALID_FUNCTABLE_ERROR;
        if the plugin's function table is smaller than the plugin expects,
       then they are incompatible, and should return an error
    ff(pFuncs->size < sizeof NPPluginFuncs)
        return NPERR_INVALID_FUNCTABLE_ERROR;
    pFuncs->version
                           = (NP_VERSION_MAJOR << 8) | NP_VERSION_MINOR;</pre>
    pFuncs->newp
                           = NPP_New;
    pFuncs->destroy
                          = NPP_Destroy;
    pFuncs->setwindow
                          = NPP_SetWindow;
= NPP_NewStream;
    pFuncs->newstream
    pFuncs->destroystream = NPP_DestroyStream;
    pFuncs->asfile
                          = NPP_StreamAsFile;
    pFuncs->writeready
                          = NPP_WriteReady;
                          = NPP_Write;
= NPP_Print;
    pFuncs->write
    pFuncs->print
    pFuncs->event
                           = NULL;
                                         // reserved
    return NPERR_NO_ERROR;
}
        called immediately after the plugin DLL is loaded
NPError WINAPI NP_EXPORT NP_Initialize(NPNetscapeFuncs* pFuncs)
    // trap a NULL ptr
    if (pFuncs == NULL)
        return NPERR_INVALID_FUNCTABLE_ERROR;
    // save it for future reference
    g_pNavigatorFuncs = pFuncs;
```

```
// if the plugin's major ver bel is lower than the Navigator's.
    // then they are incompatible, and should return an error if (HIBYTE (pFuncs->version) > NP_VERSION_MAJOR)
        return NPERR_INCOMPATIBLE_VERSION_ERROR;
    // if the Navigator's function table is smaller than the plugin expects,
         then they are incompatible, and should return an error
    if (pFuncs-)size < sizeof NPNetscapeFuncs)
        return NPERR_INVALID_FUNCTABLE_ERROR;
    if (DEBUG_PROC)MessageBox(NULL,"WINAPI NP_EXPORT NP_Initialize","DEBUG_PROC",MB_OK);
   return NPP_Initialize();
        called immediately before the plugin DLL is unloaded
NPError WINAPI NP_EXPORT NP_Shutdown()
    if(DEBUG_PROC)MessageBox(NULL,"WINAPI NP_EXPORT NP_Shutdown","DEBUG_PROC",MB_OK);
   NPP_Shutdown();
   g_pNavigatorFuncs = NULL;
   return NPERR_NO_ERROR;
        NAVIGATOR Entry points
These entry points expect to be called from within the plugin. The
        noteworthy assumption is that DS has already been set to point to the
        plugin's DLL data segment. Don't call these functions from outside
        the plugin without ensuring DS is set to the DLLs data segment first,
// 道
// 顶
        typically using the NP_LOADDS macro
//
// D
        returns the major/minor version numbers of the Plugin API for the plugin
// a
        and the Navigator
void NPN_Version(int* plugin_major, int* plugin_minor, int* netscape_major, int* netscape_minor)
  plugin_major
                    = NP_VERSION_MAJOR;
                    = NP_VERSION_MINOR:
  plugin_minor
    *netscape_major = HIBYTE(g_pNavigatorFuncs->version);
  *netscape_minor = LOBYTE(g_pNavigatorFuncs->version);
} =
        causes the specified URL to be fetched and streamed in
NPError NPN_GetURL(NPP instance, const char *url, const char *window)
    return g_pNavigatorFuncs->geturl(instance, url, window);
NPError NPN_PostURL(NPP instance, const char* url, const char* window, uint32 len, const char* buf, NPBool
 file)
    return g_pNavigatorFuncs->posturl(instance, url, window, len, buf, file);
        Requests that a number of bytes be provided on a stream. Typically
        this would be used if a stream was in "pull" mode. An optional
        position can be provided for streams which are seekable.
NPError NPN_RequestRead(NPStream* stream, NPByteRange* rangeList)
    return g_pNavigatorFuncs->requestread(stream, rangeList);
}
//
        Creates a new stream of data from the plug-in to be interpreted
        by Netscape in the current window.
NPError NPN_NewStream(NPP instance, NPMIMEType type, NPStream *stream)
```

{

```
return g_pNavigatorFuncs->news
                                     🍇m(ınstance, type, stream);
}
11
        Provides len bytes of data.
int32 NPN_Write(NPP instance, NPStream *stream,
                int32 len, void *buffer)
    return g_pNavigatorFuncs->write(instance, stream, len, buffer);
        Closes a stream object.
        reason indicates why the stream was closed.
NPError NPN_DestroyStream(NPP instance, NPStream* stream, NPError reason)
    return g_pNavigatorFuncs->destroystream(instance, stream, reason);
}
        Provides a text status message in the Netscape client user interface
void NPN_Status(NPP instance, const char *message)
    g_pNavigatorFuncs->status(instance, message);
        returns the user agent string of Navigator, which contains version info
const char* NPN_UserAgent(NPP instance)
{
    return g_pNavigatorFuncs->uagent(instance);
}
        allocates memory from the Navigator's memory space. Necessary so that
        saved instance data may be freed by Navigator when exiting.
void NPN_MemAlloc(uint32 size)
   return g_pNavigatorFuncs->memalloc(size);
   Ţ
        reciprocal of MemAlloc() above
void NPN_MemFree(void* ptr)
  U
   g_pNavigatorFuncs->memfree(ptr);
}
// 🖶
        private function to Netscape. do not use!
void NPN_ReloadPlugins(NPBool reloadPages)
     _pNavigatorFuncs->reloadplugins(reloadPages);
```

```
The following is the software code listing for the requesting end-
user's computer for the embodiment of Fig. 12.
                       File:
                       NpHcd.cpp
                       Functions:
                                             Just the
MFC shell....
/*-----
- ---*/
#include "stdafx.h"
#include "nphcd.h"
#ifdef DEBUG
#undef THIS FILE
static char BASED CODE THIS FILE[] = FILE ;
/ ///////
// CJunkApp
BEGIN MESSAGE MAP (CHcdPluginApp, CWinApp)
                      //{{AFX MSG MAP(CJunkApp)
                                             // NOTE
- the ClassWizard will add and remove mapping macros here.
                                             //
                                                  DO
NOT EDIT what you see in these blocks of generated code!
                      //}}AFX MSG MAP
END MESSAGE MAP()
/ ////////
// CJunkApp construction
CHcdPluginApp::CHcdPluginApp()
                      // TODO: add construction code here,
                      // Place all significant
initialization in InitInstance
/ ////////
// The one and only CHcdPluginApp object
CHcdPluginApp theApp;
/*----
//
```

```
//
                                               HyperKey
//
// The architecture of HyperKey allows for
// authorized and secure rendering of encrypted multimedia object
// from the protected web site. The encrypted HyperKey media
object is protected
// by crippling the media. Only authorized user can obtain
// trigger/keys from the server to unlock the HyperKey media.
      -----
_ _-*/
#ifndef WIN32
#define WIN32
#endif
#ifndef NPAPI H
#include "npapi.h"
#include "plgwnd.h"
#include "CHyperCD.h"
#endif
// mmio
#include <mmsystem.h>
#include <qtw.h>
#include <time.h>
#include <string.h>
#include <io.h>
#include <fcntl.h>
#include <sys/stat.h>
//----
// NPP_Initialize:
//-----
NPError NPP Initialize (void)
                       DEBUG TEST("NPP Initialize")
   return NPERR NO ERROR;
}
//-----
// NPP Shutdown:
```

```
//------
void NPP Shutdown(void)
                           DEBUG_TEST("NPP_Shutdown")
                           return;
// NPP New:
//----
NPError NP LOADDS
NPP New (NPMIMEType pluginType,
               NPP instance,
               uint16 mode,
               int16 argc,
               char* argn[],
               char* argv[],
              NPSavedData* saved)
{
                           DEBUG_TEST("NPP New")
    if (instance == NULL)
       return NPERR INVALID INSTANCE ERROR;
    instance->pdata = NPN MemAlloc(sizeof(PluginInstance));
    PluginInstance* This = (PluginInstance*) instance->pdata;
    if (This != NULL)
       This->window = NULL;
       This->cHypercd = new CHyperCD();
       This->mode = mode;
                                                      This-
>bAutoStart = FALSE;
       This->bLoop = FALSE;
       strcpy( This->InformationField, "HyperCD");
                                                      int idx;
                                                      STRING
sSYSFILE;
                           strcpy(sSYSFILE, SYSFILE);
                                                      char
*p1,*p2;
                                                      STRING
szArg, szValue,cd title;
                                                      for (
idx = 0; idx < argc; idx + +) {
```

```
strcpy(szArg,
                                argn[idx]);
                                strcpy(szValue, argv[idx]);
                                                                      //
Check web tags and set HyperKey flags
                                SetHyperKeyFlags(szArg, szValue);
         if (bDemandHyperKey)
                                goto parsing embed tags;
                                                                for (
idx =0; idx<argc; idx++) {</pre>
                                strcpy(szArg,
                                argn[idx]);
                                strcpy(szValue, argv[idx]);
                                ParseHyperKeyTags1(szArg,szValue);
                                                                     }
                                if(!bDemandHyperKey)
                                SysIO(sSYSFILE);
        for (idx =0; idx<argc; idx++)</pre>
                                strcpy(szArg,
                                argn[idx]);
                                strcpy(szValue, argv[idx]);
                                ParseHyperKeyTags2(szArg,szValue);
                                                                }
parsing embed tags:
                                instance->pdata = This;
                                                                return
NPERR_NO_ERROR;
    else
        return NPERR OUT OF MEMORY ERROR;
```

```
static void UnSubclass(PluginInstance *This)
    WNDPROC
                OldWndProc;
                lplpfn = This->window->GetSuperWndProcAddr();
    WNDPROC*
                              DEBUG TEST("UnSubclass")
    if (!*lplpfn)
        ASSERT(0);
        return;
    // Set the original window procedure
    OldWndProc = (WNDPROC)::SetWindowLong( This->window->m hWnd,
                              GWL WNDPROC, (LONG) *lplpfn );
    // A subclassed window's procedure is always AfxWndProc.
    // If this is not TRUE, then it's not a subclassed window.
    if ( OldWndProc != AfxWndProc )
        ASSERT(0);
}
static void KillHyperCDWindow(PluginInstance *This)
                              DEBUG TEST("KillHyperCDWindow")
    if (This->cHypercd) {
        This->cHypercd->Close();
        delete This->cHypercd;
        This->cHypercd = NULL;
                              CleanUpHyperKey();
   UnSubclass (This);
                              if (This->window) {
        This->window->Detach();
        delete This->window;
        This->window = NULL;
```

```
// NPP Destroy:
//----
NPError NP LOADDS
NPP Destroy (NPP instance, NPSavedData** save)
                         if (instance == NULL)
       return NPERR INVALID INSTANCE ERROR;
   PluginInstance* This = (PluginInstance*) instance->pdata;
                         //
   // Note: If desired, call NP MemAlloc to create a
   // NPSavedData structure containing any state information
   // that you want restored if this plugin instance is later
   // recreated.
   //
   if (This != NULL)
                         KillHyperCDWindow(This);
      NPN MemFree(instance->pdata);
   return NPERR NO ERROR;
//----
// NPP SetWindow:
//----
NPError NP LOADDS
NPP SetWindow(NPP instance, NPWindow* np window)
                         DEBUG TEST("NPP SetWindow")
   if (instance == NULL)
      return NPERR INVALID INSTANCE ERROR;
   PluginInstance* This = (PluginInstance*) instance->pdata;
   //
   // Note: Before setting fWindow to point to the
   // new window, you may wish to compare the new window
   // info to the previous window (if any) to note window
   // size changes, etc.
```

```
//
   if (!np window)
        return NPERR GENERIC ERROR;
    if (!instance)
        return NPERR INVALID INSTANCE ERROR;
    if (!This)
        return NPERR GENERIC ERROR;
    if (!np window->window && !This->window) // spurious entry
        return NPERR NO ERROR;
    if (!np window->window && This->window)
       // window went away
        KillHyperCDWindow(This);
        return NPERR NO ERROR;
    if (!This->window && np window->window)
        // First time in -- no window created by plugin yet
        This->window = (CPluginWindow *) new CPluginWindow();
        if (!This->window->SubclassWindow((HWND)np window->window))
           MessageBox (NULL, "SubclassWindow
Failed", "HyperCD", MB OK);
           return NPERR GENERIC ERROR;
        // Save This pointer in window class member variable..this
lets the
        // window message handling have access to the data pointer
easily
       This->window->StoreData(This);
    }
    // resize or moved window (or newly created)
    This->window->InvalidateRect(NULL);
    This->window->UpdateWindow();
    return NPERR NO ERROR;
}
// NPP NewStream:
______
NPError NP LOADDS
NPP NewStream(NPP instance,
                          NPMIMEType type,
                          NPStream *stream,
                          NPBool seekable,
                          uint16 *stype)
```

```
{
                           DEBUG TEST("NPP NewStream")
   if (instance == NULL)
       return NPERR INVALID INSTANCE ERROR;
   PluginInstance* This = (PluginInstance*) instance->pdata;
   *stype = NP ASFILE;
   return NPERR NO ERROR;
}
int32 STREAMBUFSIZE = 0X0FFFFFFF; // If we are reading from a file
in NPAsFile
                                // mode so we can take any size
stream in our
                                // write call (since we ignore
it)
// NPP WriteReady:
                ______
int32 NP LOADDS
NPP WriteReady(NPP instance, NPStream *stream)
                          DEBUG TEST("NPP WriteReady")
   if (instance != NULL)
       PluginInstance* This = (PluginInstance*) instance->pdata;
   return STREAMBUFSIZE; // Number of bytes ready to accept in
NPP Write()
// NPP Write:
//----
int32 NP LOADDS
NPP Write (NPP instance, NPStream *stream, int32 offset, int32 len,
void *buffer)
```

```
if (instance != NULL)
      PluginInstance* This = (PluginInstance*) instance->pdata;
                     // The number of bytes accepted
   return len;
·//----
// NPP_DestroyStream:
//----
NPError NP LOADDS
NPP DestroyStream(NPP instance, NPStream *stream, NPError reason)
                      DEBUG TEST("NPP DestroyStream")
   if (instance == NULL)
      return NPERR INVALID INSTANCE ERROR;
   PluginInstance* This = (PluginInstance*) instance->pdata;
  return NPERR NO ERROR;
}
//----
// NPP StreamAsFile:
//----
void NP LOADDS
NPP StreamAsFile(NPP instance, NPStream *stream, const char*
szStream)
                      int
                      nTriggerIndex, nType;
                      szFile[MAX STR],szMessage[MAX STR];
                      char
                      szMsg[200];
                      char
                                             *pTemp,
szPath[MAX STR];
                      DEBUG_TEST("NPP_StreamAsFile")
                      if (instance == NULL)
```

DEBUG TEST("NPP Write")

```
return;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    if (!This->cHypercd)
                                                              return;
    // Obtain object/keys
                               ObtainKey(Object, szStream);
                               if (bDemandHyperKey)
                               if(ObjectType(Object) == PGI HYPERKEY)
// file in bDemandHyperKey
                                                                   {//
1. check we have permission
                               Permission =
PermissionFromWebtoUseHyperKey();
                                                                   //
if our right is lower than the permitted, return
                               if(Permission.right > User.right)
                               return;
                                                                   //
2. if we have permission, get the access path
                 GetAccessPath(Permission));
strcpy(szPath,
                                                                   //
3. retrieve the object
                               and wait
                               RetrieveHyperKeyObject(szPath);
                                       return;
                                                              // B.
check if the streamed file is PGI MEDIA
                                                              else if(
ObjectType(Object) == PGI MEDIA) // jpeg, avi, encrypted media type
                              DisplayObject (Object
                                                             else //
anything else under bDemandHyperKey, is not valid
                               return:
```

```
else// for this version, return and
not process other command
                                                       return;
}
// NPP Print:
//----
void NP LOADDS
NPP_Print(NPP instance, NPPrint* printInfo)
                           DEBUG TEST("NPP Print")
   if(printInfo == NULL) // trap invalid parm
       return:
   if (instance != NULL)
       PluginInstance* This = (PluginInstance*) instance->pdata;
       if (printInfo->mode == NP_FULL)
           // Note: If your plugin would like to take over
           // printing completely when it is in full-screen mode,
           // set printInfo->pluginPrinted to TRUE and print your
           // plugin as you see fit. If your plugin wants Netscape
           // to handle printing in this case, set printInfo-
>pluginPrinted
           // to FALSE (the default) and do nothing. If you do
want
           // to handle printing yourself, printOne is true if the
           // print button (as opposed to the print menu) was
clicked.
           // On the Macintosh, platformPrint is a THPrint; on
Windows,
           // platformPrint is a structure (defined in npapi.h)
containing
           // the printer name, port, etc.
           void* platformPrint = printInfo-
>print.fullPrint.platformPrint;
          NPBool printOne = printInfo->print.fullPrint.printOne;
          printInfo->print.fullPrint.pluginPrinted = FALSE; // Do
the default
       else
              // If not fullscreen, we must be embedded
```

```
{
            // Note: If your plugin is embedded, or is full-screen
            // but you returned false in pluginPrinted above,
NPP Print
            // will be called with mode == NP EMBED. The NPWindow
            // in the printInfo gives the location and dimensions of
            // the embedded plugin on the printed page. On the
Macintosh.
            // platformPrint is the printer port; on Windows,
platformPrint
            // is the handle to the printing device context.
            NPWindow* printWindow = & (printInfo-
>print.embedPrint.window);
            void* platformPrint = printInfo-
>print.embedPrint.platformPrint;
    }
}
//----
// NPP HandleEvent:
// Mac-only.
                 _____
int16 NPP HandleEvent(NPP instance, void* event)
    NPBool eventHandled = FALSE;
    if (instance == NULL)
        return eventHandled;
    PluginInstance* This = (PluginInstance*) instance->pdata;
    // Note: The "event" passed in is a Macintosh
    // EventRecord*. The event.what field can be any of the
    // normal Mac event types, or one of the following additional
    // types defined in npapi.h: getFocusEvent, loseFocusEvent,
    // adjustCursorEvent. The focus events inform your plugin // that it will become, or is no longer, the recepient of // key events. If your plugin doesn't want to receive key
    // events, return false when passed at getFocusEvent. The
    // adjustCursorEvent is passed repeatedly when the mouse is
    // over your plugin; if your plugin doesn't want to set the
    // cursor, return false. Handle the standard Mac events as
    // normal. The return value for all standard events is
currently
    // ignored except for the key event: for key events, only return
    // true if your plugin has handled that particular key event.
    //
```

```
return eventHandled;
}
// stdafx.cpp : source file that includes just the standard includes
                              HyperCD.pch will be the pre-compiled
header
//
                              stdafx.obj will contain the pre-
compiled type information
#include "stdafx.h"
/*
   npapi.h $Revision: 1.57 $
 * Netscape client plug-in API spec
#ifndef NPAPI H
#define NPAPI_H_
/* XXX this needs to get out of here */
#if defined( MWERKS )
#ifndef XP_MAC
#define XP MAC
#endif
#endif
    Version constants
#define NP VERSION MAJOR 0
#define NP_VERSION_MINOR 6
   Basic types
#ifndef UINT16
typedef unsigned short uint16;
#endif
#ifndef UINT32
typedef unsigned long uint32;
#endif
#ifndef INT16
typedef short int16;
#endif
#ifndef INT32
typedef long int32;
```

```
#endif
#ifndef FALSE
#define FALSE (0)
#endif
#ifndef TRUE
#define TRUE (1)
#endif
#ifndef NULL
#define NULL (0L)
#endif
typedef unsigned char
                        NPBool;
typedef void*
                         NPEvent;
typedef int16
                        NPError;
                        NPMIMEType;
typedef char*
/*
   NPP is a plug-in's opaque instance handle
typedef struct NPP
                                   /* plug-in private data */
    void*
            pdata;
                                   /* netscape private data */
    void*
            ndata;
} NPP t;
typedef NPP t* NPP;
typedef struct _NPStream
                                       /* plug-in private data */
    void*
                pdata;
                                       /* netscape private data */
    void*
                ndata;
    const char* url;
                end;
    uint32
                lastmodified;
    uint32
} NPStream;
typedef struct _NPByteRange
                             offset;
                                                     /* negative
    int32
offset means from the end */
                             length;
    uint32
    struct NPByteRange*
                             next;
} NPByteRange;
typedef struct _NPSavedData
    int32
            len;
    void*
            buf;
} NPSavedData;
```

```
typedef struct NPRect
    uint16
            top;
    uint16
           left;
    uint16 bottom;
    uint16
            right;
} NPRect;
typedef struct NPWindow
                                    /* platform specific window
    void*
            window;
handle */
                                    /* position of top left corner
    uint32
           x;
relative to a netscape page */
    uint32
           у;
                                    /* maximum window size */
    uint32 width;
    uint32 height;
                                    /* clipping rectangle in port
   NPRect clipRect;
coordinates */
} NPWindow;
typedef struct NPFullPrint
                pluginPrinted;
                                   /* Set TRUE if plugin handled
   NPBool
fullscreen printing */
                printOne;
                                    /* TRUE if plugin should print
   NPBool
one copy to default printer */
                                    /* Platform-specific printing
                platformPrint;
    void*
info */
} NPFullPrint;
typedef struct NPEmbedPrint
                window;
   NPWindow
                                   /* Platform-specific printing
                platformPrint;
    void*
info */
} NPEmbedPrint;
typedef struct NPPrint
                                    /* NP FULL or NP EMBED */
    uint16
                        mode;
    union
       NPFullPrint
                        fullPrint; /* if mode is NP FULL */
                        embedPrint; /* if mode is NP EMBED */
       NPEmbedPrint
    } print;
} NPPrint;
```

```
#ifdef XP MAC
/*
  Mac-specific structures and definitions.
#include <Quickdraw.h>
#include <Events.h>
typedef struct NP Port
                               /* Grafport */
    CGrafPtr
                port;
                               /* position inside the topmost
    int32
                portx;
window */
    int32
                porty;
} NP Port;
 * Non-standard event types that can be passed to HandleEvent
#define getFocusEvent
                             (osEvt + 16)
#define loseFocusEvent
                            (osEvt + 17)
#define adjustCursorEvent (osEvt + 18)
#endif /* XP MAC */
#define NP EMBED
#define NP FULL
#define NP BACKGROUND
#define NP_NORMAL
#define NP_SEEK
                        1
                        2
#define NP ASFILE
#define NP MAXREADY (((unsigned)(~0)<<1)>>1)
/*
   Error and reason code definitions.
#define NP NOERR 0
#define NP EINVAL 1
#define NP EABORT 2
#define NPERR BASE
#define NPERR NO ERROR
                                         (NPERR BASE + 0)
#define NPERR_GENERIC_ERROR
                                         (NPERR BASE + 1)
#define NPERR INVALID INSTANCE ERROR
                                         (NPERR BASE + 2)
```

```
#define NPERR INVALID FUNCTABLE ERROR
                                         (NPERR BASE + 3)
#define NPERR MODULE LOAD FAILED ERROR (NPERR BASE + 4)
#define NPERR OUT OF MEMORY ERROR
                                         (NPERR BASE + 5)
#define NPERR INVALID PLUGIN ERROR
                                         (NPERR BASE + 6)
#define NPERR INVALID PLUGIN DIR ERROR (NPERR BASE + 7)
#define NPERR INCOMPATIBLE VERSION ERROR (NPERR BASE + 8)
#define NPRES BASE
#define NPRES NETWORK ERR
                                         (NPRES BASE + 0)
#define NPRES USER BREAK
                                         (NPRES BASE + 1)
                                         (NPRES BASE + 3)
#define NPRES DONE
/*
   Function prototypes.
    Functions beginning with 'NPP' are functions provided by the
plugin that Netscape will call.
 * Functions beginning with 'NPN' are functions provided by
Netscape that the plugin will call.
 */
#if defined(WINDOWS) && !defined(WIN32)
#define NP LOADDS loadds
#else
#define NP LOADDS
#endif
#ifdef cplusplus
extern "C" {
#endif
                      NPP Initialize (void);
NPError
void
                      NPP Shutdown (void);
NPError NP LOADDS NPP New (NPMIMEType pluginType, NPP instance,
uint16 mode, int16 argc, char* argn[], char* argv[], NPSavedData*
saved);
            NP LOADDS NPP Destroy(NPP instance, NPSavedData** save);
NPError
            NP LOADDS NPP SetWindow(NPP instance, NPWindow* window);
NPError
            NP LOADDS NPP NewStream (NPP instance, NPMIMEType type,
NPError
NPStream* stream, NPBool seekable, uint16* stype);
            NP LOADDS NPP DestroyStream(NPP instance, NPStream*
stream, NPError reason);
            NP LOADDS NPP WriteReady (NPP instance, NPStream*
int32
stream);
            NP LOADDS NPP Write (NPP instance, NPStream* stream,
int32
int32 offset, int32 len, void* buffer);
            NP LOADDS NPP StreamAsFile(NPP instance, NPStream*
stream, const char* fname);
            NP LOADDS NPP Print (NPP instance, NPPrint*
platformPrint);
                      NPP HandleEvent(NPP instance, void* event);
int16
```

```
NPN_Version(int* plugin major, int* plugin minor, int*
void
netscape major, int* netscape minor);
           NPN GetURL (NPP instance, const char* url, const char*
NPError
window);
           NPN PostURL(NPP instance, const char* url, const char*
NPError
window, uint32 len, const char* buf, NPBool file);
           NPN RequestRead(NPStream* stream, NPByteRange*
NPError
rangeList);
           NPN NewStream(NPP instance, NPMIMEType type, NPStream*
NPError
stream);
           NPN Write (NPP instance, NPStream* stream, int32 len,
int32
void* buffer);
           NPN DestroyStream(NPP instance, NPStream* stream,
NPError
NPError reason);
           NPN Status (NPP instance, const char* message);
void
const char* NPN UserAgent(NPP instance);
           NPN MemAlloc(uint32 size);
void*
           NPN MemFree (void* ptr);
void
           NPN MemFlush (uint32 size);
uint32
void
                             NPN ReloadPlugins(NPBool reloadPages);
#ifdef cplusplus
  /* end extern "C" */
#endif
#endif /* NPAPI_H_ */
/*
  npupp.h $Revision: 1.24 $
   function call mecahnics needed by platform specific glue code.
#ifndef _NPUPP_H_
#define NPUPP H
#ifndef GENERATINGCFM
#define GENERATINGCFM 0
#endif
#ifndef NPAPI H
#include "npapi.h"
#endif
/*************************
* *******
  plug-in function table macros
                                     for each function in and out
of the plugin API we define
                   typedef NPP FooUPP
```

```
#define
NewNPP FooProc
                                                          #define
CallNPP FooProc
                                                               for
mac, define the UPP magic for PPC/68K calling
**********************
* **************
/* NPP Initialize */
#if GENERATINGCFM
typedef UniversalProcPtr NPP InitializeUPP;
enum {
                             uppNPP InitializeProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER (1, SIZE_CODE (0))
RESULT SIZE(SIZE CODE(0))
};
#define NewNPP InitializeProc(FUNC)
                             (NPP InitializeUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP InitializeProcInfo,
GetCurrentArchitecture())
#define CallNPP InitializeProc(FUNC)
                             (void) CallUniversalProc ((UniversalProc
Ptr) (FUNC), uppNPP InitializeProcInfo)
#else
typedef void (*NPP_InitializeUPP) (void);
#define NewNPP InitializeProc(FUNC)
                             ((NPP InitializeUPP) (FUNC))
#define CallNPP_InitializeProc(FUNC)
                             (*(FUNC))()
#endif
/* NPP Shutdown */
#if GENERATINGCFM
typedef UniversalProcPtr NPP ShutdownUPP;
```

```
enum {
                               uppNPP ShutdownProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(0))
RESULT SIZE(SIZE CODE(0))
};
#define NewNPP ShutdownProc(FUNC)
                               (NPP ShutdownUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP ShutdownProcInfo,
GetCurrentArchitecture())
#define CallNPP ShutdownProc(FUNC)
                               (void) CallUniversalProc((UniversalProc
Ptr) (FUNC), uppNPP ShutdownProcInfo)
#else
typedef void (*NPP ShutdownUPP) (void);
#define NewNPP ShutdownProc(FUNC)
                               ((NPP ShutdownUPP) (FUNC))
#define CallNPP ShutdownProc(FUNC)
                               (*(FUNC))()
#endif
/* NPP New */
#if GENERATINGCFM
typedef UniversalProcPtr NPP NewUPP;
enum {
                              uppNPP NewProcInfo = kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPMIMEType)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(uint16)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(int16)))
STACK ROUTINE PARAMETER(5, SIZE CODE(sizeof(char **)))
STACK ROUTINE PARAMETER(6, SIZE CODE(sizeof(char **)))
STACK ROUTINE PARAMETER(7, SIZE CODE(sizeof(NPSavedData *)))
```

```
RESULT SIZE(SIZE CODE(sizeof(NPError)))
};
#define NewNPP NewProc(FUNC)
                               (NPP NewUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP NewProcInfo,
GetCurrentArchitecture())
#define CallNPP NewProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5, ARG6,
ARG7) \
                               (NPError) CallUniversalProc((UniversalP
rocPtr) (FUNC), uppNPP NewProcInfo, \
(ARG1), (ARG2), (ARG3), (ARG4), (ARG5), (ARG6), (ARG7))
#else
                               (*NPP NewUPP) (NPMIMEType pluginType,
typedef NPError
NPP instance, uint16 mode, int16 argc, char* argn[], char* argv[],
NPSavedData* saved);
#define NewNPP NewProc(FUNC)
                               ((NPP NewUPP) (FUNC))
#define CallNPP NewProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5, ARG6,
ARG7)
                               (*(FUNC))((ARG1), (ARG2), (ARG3),
(ARG4), (ARG5), (ARG6), (ARG7))
#endif
/* NPP Destroy */
#if GENERATINGCFM
typedef UniversalProcPtr NPP DestroyUPP;
enum {
                              uppNPP DestroyProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPSavedData **)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPP DestroyProc(FUNC)
```

(NPP DestroyUPP)

```
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP DestroyProcInfo,
GetCurrentArchitecture())
#define CallNPP DestroyProc(FUNC, ARG1, ARG2)
                               (NPError) CallUniversalProc((UniversalP
rocPtr)(FUNC), uppNPP DestroyProcInfo, (ARG1), (ARG2))
#else
                               (*NPP DestroyUPP) (NPP instance,
typedef NPError
NPSavedData** save);
#define NewNPP DestroyProc(FUNC)
                               ((NPP DestroyUPP) (FUNC))
#define CallNPP DestroyProc(FUNC, ARG1, ARG2)
                               (*(FUNC))((ARG1), (ARG2))
#endif
/* NPP SetWindow */
#if GENERATINGCFM
typedef UniversalProcPtr NPP SetWindowUPP;
enum {
                               uppNPP SetWindowProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE_CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPWindow *)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPP SetWindowProc(FUNC)
                               (NPP SetWindowUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP SetWindowProcInfo,
GetCurrentArchitecture())
#define CallNPP SetWindowProc(FUNC, ARG1, ARG2)
                               (NPError) CallUniversalProc ((UniversalP
rocPtr)(FUNC), uppNPP SetWindowProcInfo, (ARG1), (ARG2))
#else
typedef NPError
                               (*NPP SetWindowUPP) (NPP instance,
NPWindow* window);
#define NewNPP SetWindowProc(FUNC)
                               ((NPP SetWindowUPP) (FUNC))
#define CallNPP SetWindowProc(FUNC, ARG1, ARG2)
```

```
(*(FUNC))((ARG1), (ARG2))
#endif
/* NPP NewStream */
#if GENERATINGCFM
typedef UniversalProcPtr NPP NewStreamUPP;
enum {
                              uppNPP NewStreamProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPMIMEType)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(NPBool)))
STACK ROUTINE PARAMETER(5, SIZE CODE(sizeof(uint16 *)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPP NewStreamProc(FUNC)
                               (NPP NewStreamUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP NewStreamProcInfo,
GetCurrentArchitecture())
#define CallNPP NewStreamProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5)
                               (NPError) CallUniversalProc((UniversalP
rocPtr) (FUNC), uppNPP NewStreamProcInfo, (ARG1), (ARG2), (ARG3),
(ARG4), (ARG5))
#else
                               (*NPP NewStreamUPP) (NPP instance,
typedef NPError
NPMIMEType type, NPStream* stream, NPBool seekable, uint16* stype);
#define NewNPP NewStreamProc(FUNC)
                               ((NPP NewStreamUPP) (FUNC))
#define CallNPP NewStreamProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5) \
                               (*(FUNC))((ARG1), (ARG2), (ARG3),
(ARG4), (ARG5))
#endif
/* NPP DestroyStream */
```

#if GENERATINGCFM typedef UniversalProcPtr NPP DestroyStreamUPP; enum { uppNPP DestroyStreamProcInfo = kThinkCStackBased STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP))) STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *))) STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(NPError))) RESULT SIZE(SIZE CODE(sizeof(NPError))) #define NewNPP DestroyStreamProc(FUNC) (NPP DestroyStreamUPP) NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP DestroyStreamProcInfo, GetCurrentArchitecture()) #define CallNPP DestroyStreamProc(FUNC, NPParg, NPStreamPtr, NPErrorArg) (NPError) CallUniversalProc ((UniversalP rocPtr)(FUNC), uppNPP DestroyStreamProcInfo, (NPParg), (NPStreamPtr), (NPErrorArg)) #else typedef NPError (*NPP DestroyStreamUPP) (NPP instance, NPStream* stream, NPError reason); #define NewNPP DestroyStreamProc(FUNC) ((NPP DestroyStreamUPP) (FUNC)) #define CallNPP DestroyStreamProc(FUNC, NPParg, NPStreamPtr, NPErrorArg) (*(FUNC))((NPParq), (NPStreamPtr), (NPErrorArg)) #endif /* NPP WriteReady */ #if GENERATINGCFM typedef UniversalProcPtr NPP WriteReadyUPP; enum { uppNPP WriteReadyProcInfo = kThinkCStackBased STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))

```
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *)))
RESULT SIZE(SIZE CODE(sizeof(int32)))
#define NewNPP WriteReadyProc(FUNC)
                               (NPP WriteReadyUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP WriteReadyProcInfo,
GetCurrentArchitecture())
#define CallNPP WriteReadyProc(FUNC, NPParg, NPStreamPtr)
                               (int32) CallUniversalProc((UniversalPro
cPtr)(FUNC), uppNPP WriteReadyProcInfo, (NPParg), (NPStreamPtr))
#else
typedef int32 (*NPP WriteReadyUPP) (NPP instance, NPStream* stream);
#define NewNPP WriteReadyProc(FUNC)
                               ((NPP WriteReadyUPP) (FUNC))
#define CallNPP WriteReadyProc(FUNC, NPParg, NPStreamPtr)
                               (*(FUNC))((NPParg), (NPStreamPtr))
#endif
/* NPP Write */
#if GENERATINGCFM
typedef UniversalProcPtr NPP WriteUPP;
enum {
                              uppNPP WriteProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(int32)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(int32)))
STACK ROUTINE PARAMETER(5, SIZE CODE(sizeof(void*)))
RESULT SIZE(SIZE CODE(sizeof(int32)))
#define NewNPP WriteProc(FUNC)
                               (NPP WriteUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP WriteProcInfo,
```

GetCurrentArchitecture())

```
#define CallNPP WriteProc(FUNC, NPParg, NPStreamPtr, offsetArg,
lenArg, bufferPtr)
                               (int32) CallUniversalProc((UniversalPro
cPtr)(FUNC), uppNPP WriteProcInfo, (NPParq), (NPStreamPtr),
(offsetArg), (lenArg), (bufferPtr))
#else
typedef int32 (*NPP WriteUPP) (NPP instance, NPStream* stream, int32
offset, int32 len, void* buffer);
#define NewNPP WriteProc(FUNC)
                               ((NPP WriteUPP) (FUNC))
#define CallNPP WriteProc(FUNC, NPParg, NPStreamPtr, offsetArg,
lenArg, bufferPtr)
                               (*(FUNC))((NPParg), (NPStreamPtr),
(offsetArg), (lenArg), (bufferPtr))
#endif
/* NPP StreamAsFile */
#if GENERATINGCFM
typedef UniversalProcPtr NPP StreamAsFileUPP;
enum {
                              uppNPP StreamAsFileProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(const char *)))
RESULT SIZE(SIZE CODE(0))
#define NewNPP StreamAsFileProc(FUNC)
                               (NPP StreamAsFileUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP StreamAsFileProcInfo,
GetCurrentArchitecture())
#define CallNPP StreamAsFileProc(FUNC, ARG1, ARG2, ARG3)
                               (void) CallUniversalProc((UniversalProc
Ptr) (FUNC), uppNPP StreamAsFileProcInfo, (ARG1), (ARG2), (ARG3))
#else
typedef void (*NPP StreamAsFileUPP) (NPP instance, NPStream* stream,
const char* fname);
```

```
#define NewNPP StreamAsFileProc(FUNC)
                                                                   \
                               ((NPP StreamAsFileUPP) (FUNC))
#define CallNPP StreamAsFileProc(FUNC, ARG1, ARG2, ARG3)
                               (*(FUNC))((ARG1), (ARG2), (ARG3))
#endif
/* NPP Print */
#if GENERATINGCFM
typedef UniversalProcPtr NPP PrintUPP;
enum {
                              uppNPP PrintProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE_CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPPrint *)))
RESULT SIZE(SIZE CODE(0))
#define NewNPP PrintProc(FUNC)
                               (NPP PrintUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP PrintProcInfo,
GetCurrentArchitecture())
#define CallNPP PrintProc(FUNC, NPParg, voidPtr)
                               (void) CallUniversalProc((UniversalProc
Ptr) (FUNC), uppNPP PrintProcInfo, (NPParg), (voidPtr))
#else
typedef void (*NPP PrintUPP) (NPP instance, NPPrint* platformPrint);
#define NewNPP PrintProc(FUNC)
                               ((NPP PrintUPP) (FUNC))
#define CallNPP PrintProc(FUNC, NPParg, NPPrintArg)
                               (*(FUNC))((NPParg), (NPPrintArg))
#endif
/* NPP HandleEvent */
#if GENERATINGCFM
typedef UniversalProcPtr NPP HandleEventUPP;
enum {
```

```
uppNPP HandleEventProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(void *)))
RESULT SIZE(SIZE CODE(sizeof(int16)))
};
#define NewNPP HandleEventProc(FUNC)
                               (NPP HandleEventUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP HandleEventProcInfo,
GetCurrentArchitecture())
#define CallNPP HandleEventProc(FUNC, NPParg, voidPtr)
                               (int16)CallUniversalProc((UniversalPro
cPtr)(FUNC), uppNPP HandleEventProcInfo, (NPParg), (voidPtr))
#else
typedef int16 (*NPP HandleEventUPP) (NPP instance, void* event);
#define NewNPP HandleEventProc(FUNC)
                               ((NPP HandleEventUPP) (FUNC))
#define CallNPP HandleEventProc(FUNC, NPParg, voidPtr)
                               (*(FUNC))((NPParg), (voidPtr))
#endif
   Netscape entry points
/* NPN GetUrl */
#if GENERATINGCFM
typedef UniversalProcPtr NPN GetURLUPP;
enum {
                              uppNPN GetURLProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(const char*)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(const char*)))
```

```
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPN GetURLProc(FUNC)
                               (NPN GetURLUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN GetURLProcInfo,
GetCurrentArchitecture())
#define CallNPN GetURLProc(FUNC, ARG1, ARG2, ARG3) \
                               (NPError) CallUniversalProc((UniversalP
rocPtr)(FUNC), uppNPN GetURLProcInfo, (ARG1), (ARG2), (ARG3))
#else
typedef NPError
                               (*NPN GetURLUPP) (NPP instance, const
char* url, const char* window);
#define NewNPN GetURLProc(FUNC)
                               ((NPN GetURLUPP) (FUNC))
#define CallNPN GetURLProc(FUNC, ARG1, ARG2, ARG3)
                               (*(FUNC))((ARG1), (ARG2), (ARG3))
#endif
/* NPN PostUrl */
#if GENERATINGCFM
typedef UniversalProcPtr NPN PostURLUPP;
enum {
                               uppNPN PostURLProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(const char*)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(const char*)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(uint32)))
STACK ROUTINE PARAMETER(5, SIZE CODE(sizeof(const char*)))
STACK ROUTINE PARAMETER(6, SIZE CODE(sizeof(NPBool)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPN PostURLProc(FUNC)
                               (NPN PostURLUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN PostURLProcInfo,
GetCurrentArchitecture())
```

```
#define CallNPN PostURLProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5,
ARG6) \
                               (NPError) CallUniversalProc ((UniversalP
rocPtr) (FUNC), uppNPN PostURLProcInfo, (ARG1), (ARG2), (ARG3),
(ARG4), (ARG5), (ARG6)
#else
typedef NPError (*NPN PostURLUPP) (NPP instance, const char* url,
const char* window, uint32 len, const char* buf, NPBool file);
#define NewNPN PostURLProc(FUNC)
                               ((NPN PostURLUPP) (FUNC))
#define CallNPN PostURLProc(FUNC, ARG1, ARG2, ARG3, ARG4, ARG5,
ARG6) \
                               (*(FUNC))((ARG1), (ARG2), (ARG3),
(ARG4), (ARG5), (ARG6))
#endif
/* NPN RequestRead */
#if GENERATINGCFM
typedef UniversalProcPtr NPN RequestReadUPP;
enum {
                               uppNPN RequestReadProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPByteRange *)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPN RequestReadProc(FUNC)
                               (NPN RequestReadUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN RequestReadProcInfo,
GetCurrentArchitecture())
#define CallNPN RequestReadProc(FUNC, stream, range)
                               (NPError) CallUniversalProc((UniversalP
rocPtr) (FUNC), uppNPN RequestReadProcInfo, (stream), (range))
#else
typedef NPError
                               (*NPN RequestReadUPP) (NPStream*
stream, NPByteRange* rangeList);
#define NewNPN RequestReadProc(FUNC)
                                                                   \
                               ((NPN RequestReadUPP) (FUNC))
#define CallNPN RequestReadProc(FUNC, stream, range)
```

```
(*(FUNC))((stream), (range))
#endif
/* NPN NewStream */
#if GENERATINGCFM
typedef UniversalProcPtr NPN NewStreamUPP;
enum {
                               uppNPN NewStreamProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPMIMEType)))
STACK ROUTINE_PARAMETER(3, SIZE_CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(NPBool)))
STACK_ROUTINE_PARAMETER(5, SIZE_CODE(sizeof(uint16*)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPN NewStreamProc(FUNC)
                               (NPN NewStreamUPP)
NewRoutineDescriptor((ProcPtr)(FUN\overline{C}), uppNPN NewStreamProcInfo,
GetCurrentArchitecture())
#define CallNPN NewStreamProc(FUNC, npp, type, stream)
                               (NPError) CallUniversalProc ((UniversalP
rocPtr)(FUNC), uppNPN_NewStreamProcInfo, (npp), (type), (stream))
#else
                               (*NPN NewStreamUPP)(NPP instance,
typedef NPError
NPMIMEType type, NPStream* stream);
#define NewNPN NewStreamProc(FUNC)
                               ((NPN NewStreamUPP) (FUNC))
#define CallNPN NewStreamProc(FUNC, npp, type, stream)
                               (*(FUNC))((npp), (type), (stream))
#endif
/* NPN Write */
```

```
#if GENERATINGCFM
typedef UniversalProcPtr NPN WriteUPP;
enum {
                              uppNPN WriteProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(int32)))
STACK ROUTINE PARAMETER(4, SIZE CODE(sizeof(void*)))
RESULT SIZE(SIZE CODE(sizeof(int32)))
#define NewNPN WriteProc(FUNC)
                               (NPN WriteUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN WriteProcInfo,
GetCurrentArchitecture())
#define CallNPN WriteProc(FUNC, npp, stream, len, buffer)
                               (int32) CallUniversalProc((UniversalPro
cPtr)(FUNC), uppNPN_WriteProcInfo, (npp), (stream), (len), (buffer))
#else
typedef int32 (*NPN WriteUPP) (NPP instance, NPStream* stream, int32
len, void* buffer);
#define NewNPN_WriteProc(FUNC)
                               ((NPN WriteUPP) (FUNC))
#define CallNPN WriteProc(FUNC, npp, stream, len, buffer)
                               (*(FUNC))((npp), (stream), (len),
(buffer))
#endif
/* NPN DestroyStream */
#if GENERATINGCFM
typedef UniversalProcPtr NPN DestroyStreamUPP;
enum {
                              uppNPN DestroyStreamProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
```

```
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(NPStream *)))
STACK ROUTINE PARAMETER(3, SIZE CODE(sizeof(NPError)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPN DestroyStreamProc(FUNC)
                               (NPN DestroyStreamUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN DestroyStreamProcInfo,
GetCurrentArchitecture())
#define CallNPN DestroyStreamProc(FUNC, npp, stream, err)
                                                                   \
                               (NPError) CallUniversalProc((UniversalP
rocPtr)(FUNC), uppNPN DestroyStreamProcInfo, (npp), (stream), (err))
#else
typedef NPError (*NPN_DestroyStreamUPP) (NPP instance, NPStream*
stream, NPError reason);
#define NewNPN DestroyStreamProc(FUNC)
                               ((NPN DestroyStreamUPP) (FUNC))
#define CallNPN DestroyStreamProc(FUNC, npp, stream, err)
                               (*(FUNC))((npp), (stream), (err))
#endif
/* NPN Status */
#if GENERATINGCFM
typedef UniversalProcPtr NPN StatusUPP;
enum {
                              uppNPN StatusProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE_CODE(sizeof(NPP)))
STACK ROUTINE PARAMETER(2, SIZE CODE(sizeof(char *)))
};
#define NewNPN StatusProc(FUNC)
                               (NPN StatusUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN_StatusProcInfo,
GetCurrentArchitecture())
#define CallNPN StatusProc(FUNC, npp, msg)
```

```
(void) CallUniversalProc ((UniversalProc
Ptr) (FUNC), uppNPN StatusProcInfo, (npp), (msg))
#else
typedef void (*NPN StatusUPP) (NPP instance, const char* message);
#define NewNPN StatusProc(FUNC)
                               ((NPN StatusUPP) (FUNC))
#define CallNPN StatusProc(FUNC, npp, msg)
                               (*(FUNC))((npp), (msg))
#endif
/* NPN UserAgent */
#if GENERATINGCFM
typedef UniversalProcPtr NPN UserAgentUPP;
enum {
        uppNPN UserAgentProcInfo = kThinkCStackBased
                   STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(NPP)))
                  RESULT SIZE(SIZE CODE(sizeof(const char *)))
};
#define NewNPN UserAgentProc(FUNC)
                 (NPN_UserAgentUPP)
NewRoutineDescriptor ((ProcPtr) (FUNC), uppNPN_UserAgentProcInfo,
GetCurrentArchitecture())
#define CallNPN UserAgentProc(FUNC, ARG1)
                 (const
char*) CallUniversalProc((UniversalProcPtr)(FUNC),
uppNPN UserAgentProcInfo, (ARG1))
#else
                               (*NPN UserAgentUPP) (NPP instance);
typedef const char*
#define NewNPN UserAgentProc(FUNC)
                 ((NPN UserAgentUPP) (FUNC))
#define CallNPN UserAgentProc(FUNC, ARG1)
                 (*(FUNC))((ARG1))
#endif
/* NPN MemAlloc */
#if GENERATINGCFM
typedef UniversalProcPtr NPN MemAllocUPP;
enum {
                               uppNPN MemAllocProcInfo =
kThinkCStackBased
```

```
STACK_ROUTINE PARAMETER(1, SIZE CODE(sizeof(uint32)))
RESULT SIZE(SIZE CODE(sizeof(void *)))
};
#define NewNPN MemAllocProc(FUNC)
                               (NPN MemAllocUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN MemAllocProcInfo,
GetCurrentArchitecture())
#define CallNPN MemAllocProc(FUNC, ARG1)
                               (void*)CallUniversalProc((UniversalPro
cPtr)(FUNC), uppNPN MemAllocProcInfo, (ARG1))
#else
typedef void* (*NPN MemAllocUPP) (uint32 size);
#define NewNPN MemAllocProc(FUNC)
                               ((NPN MemAllocUPP) (FUNC))
#define CallNPN MemAllocProc(FUNC, ARG1)
                               (*(FUNC))((ARG1))
#endif
/* NPN MemFree */
#if GENERATINGCFM
typedef UniversalProcPtr NPN MemFreeUPP;
enum {
                               uppNPN MemFreeProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(void *)))
#define NewNPN MemFreeProc(FUNC)
                               (NPN MemFreeUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN MemFreeProcInfo,
GetCurrentArchitecture())
#define CallNPN MemFreeProc(FUNC, ARG1)
                               (void) CallUniversalProc((UniversalProc
Ptr) (FUNC), uppNPN MemFreeProcInfo, (ARG1))
#else
typedef void (*NPN MemFreeUPP) (void* ptr);
```

```
#define NewNPN MemFreeProc(FUNC)
                               ((NPN MemFreeUPP) (FUNC))
#define CallNPN MemFreeProc(FUNC, ARG1)
                               (*(FUNC))((ARG1))
#endif
/* NPN MemFlush */
#if GENERATINGCFM
typedef UniversalProcPtr NPN MemFlushUPP;
enum {
                               uppNPN MemFlushProcInfo =
kThinkCStackBased
STACK ROUTINE PARAMETER(1, SIZE CODE(sizeof(uint32)))
RESULT SIZE(SIZE CODE(sizeof(uint32)))
};
#define NewNPN MemFlushProc(FUNC)
                               (NPN MemFlushUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN MemFlushProcInfo,
GetCurrentArchitecture())
#define CallNPN MemFlushProc(FUNC, ARG1)
                               (uint32) CallUniversalProc((UniversalPr
ocPtr)(FUNC), uppNPN MemFlushProcInfo, (ARG1))
#else
typedef uint32 (*NPN MemFlushUPP) (uint32 size);
#define NewNPN MemFlushProc(FUNC)
                               ((NPN MemFlushUPP) (FUNC))
#define CallNPN MemFlushProc(FUNC, ARG1)
                               (*(FUNC))((ARG1))
#endif
/* NPN ReloadPlugins */
#if GENERATINGCFM
typedef UniversalProcPtr NPN ReloadPluginsUPP;
enum {
```

```
uppNPN ReloadPluginsProcInfo =
kThinkCStackBased
STACK_ROUTINE_PARAMETER(1, SIZE_CODE(sizeof(NPBool)))
RESULT SIZE(SIZE CODE(0))
};
#define NewNPN ReloadPluginsProc(FUNC)
                            (NPN ReloadPluginsUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPN ReloadPluginsProcInfo,
GetCurrentArchitecture())
#define CallNPN ReloadPluginsProc(FUNC, ARG1)
                            (void) CallUniversalProc((UniversalProc
Ptr) (FUNC), uppNPN ReloadPluginsProcInfo, (ARG1))
#else
typedef void (*NPN ReloadPluginsUPP) (NPBool reloadPages);
#define NewNPN ReloadPluginsProc(FUNC)
                            ((NPN ReloadPluginsUPP) (FUNC))
#define CallNPN ReloadPluginsProc(FUNC, ARG1)
                            (*(FUNC))((ARG1))
#endif
/***********************
* ***********
 * The actual plugin function table definitions
*******************
* ********
typedef struct NPPluginFuncs {
                           uint16 size;
                           uint16 version;
   NPP NewUPP newp;
   NPP DestroyUPP destroy;
   NPP SetWindowUPP setwindow;
   NPP NewStreamUPP newstream;
   NPP DestroyStreamUPP destroystream;
                           NPP StreamAsFileUPP asfile;
   NPP WriteReadyUPP writeready;
   NPP WriteUPP write;
   NPP PrintUPP print;
   NPP HandleEventUPP event;
} NPPluginFuncs;
```

```
typedef struct NPNetscapeFuncs {
                           uint16 size;
                           uint16 version;
   NPN GetURLUPP geturl;
   NPN PostURLUPP posturl;
   NPN RequestReadUPP requestread;
   NPN NewStreamUPP newstream;
   NPN WriteUPP write;
   NPN DestroyStreamUPP destroystream;
   NPN StatusUPP status;
   NPN UserAgentUPP uagent;
                           NPN MemAllocUPP memalloc;
                           NPN MemFreeUPP memfree;
                           NPN MemFlushUPP memflush;
                           NPN ReloadPluginsUPP reloadplugins;
} NPNetscapeFuncs;
#ifdef XP MAC
/********************
* ******
 * Mac platform-specific plugin glue stuff
*******************
* ********
 * Main entry point of the plugin.
 * This routine will be called when the plugin is loaded. The
function
 * tables are passed in and the plugin fills in the NPPluginFuncs
 * and NPPShutdownUPP for Netscape's use.
#if GENERATINGCFM
typedef UniversalProcPtr NPP MainEntryUPP;
enum {
                           uppNPP MainEntryProcInfo =
kThinkCStackBased
STACK_ROUTINE_PARAMETER(1, SIZE CODE(sizeof(NPNetscapeFuncs*)))
STACK ROUTINE_PARAMETER(2, SIZE CODE(sizeof(NPPluginFuncs*)))
STACK_ROUTINE_PARAMETER(3, SIZE CODE(sizeof(NPP ShutdownUPP*)))
RESULT SIZE(SIZE CODE(sizeof(NPError)))
#define NewNPP MainEntryProc(FUNC)
```

```
(NPP MainEntryUPP)
NewRoutineDescriptor((ProcPtr)(FUNC), uppNPP MainEntryProcInfo,
GetCurrentArchitecture())
#define CallNPP MainEntryProc(FUNC, netscapeFunc, pluginFunc,
shutdownUPP)
                             CallUniversalProc((UniversalProcPtr)(F
UNC), (ProcInfoType)uppNPP_MainEntryProcInfo, (netscapeFunc),
(pluginFunc), (shutdownUPP))
#else
typedef NPError (*NPP_MainEntryUPP)(NPNetscapeFuncs*,
NPPluginFuncs*, NPP ShutdownUPP*);
#define NewNPP MainEntryProc(FUNC)
                              ((NPP_MainEntryUPP) (FUNC))
#define CallNPP MainEntryProc(FUNC, netscapeFunc, pluginFunc,
shutdownUPP)
                              (*(FUNC))((netscapeFunc),
(pluginFunc), (shutdownUPP))
#endif
#endif /* MAC */
#ifdef _WINDOWS
#ifdef cplusplus extern \overline{^{"}C"} {
#endif
/* plugin meta member functions */
NPError WINAPI NP GetEntryPoints(NPPluginFuncs* pFuncs);
NPError WINAPI NP Initialize(NPNetscapeFuncs* pFuncs);
NPError WINAPI NP_Shutdown();
#ifdef cplusplus
#endif
#endif /* WINDOWS */
#endif /* NPUPP H */
//----
//
```

```
File:
//
                             CHyperCD.h
//
                             Functions:
                             HyperCD movie playing routines
             _____
// HyperCD Error Codes
#define AEC_POSITIONFAIL
                             1
// CHyperCD class
class CHyperCD
// Construction
public:
                             CHyperCD ();
                             ~CHyperCD ();
// Attributes
public:
                                                          mOpen;
                             BOOL
                             BOOL
                             mPlaying;
                             mMovieWnd;
    HWND
                             mDisableRButtonDown;
    BOOL
private:
                             UINT
                             mDeviceID;
                             int
                             mErrorCode;
                             DWORD
                             mMCIErrorCode;
// Operations
public:
                             Realize (void);
    BOOL
                                                          Open
                             BOOL
(CWnd *, CString, CString);
                                                          Close
                             void
(void);
                             Update(void);
    void
                                                          Start
                             BOOL
(BOOL bLoop);
                                                          SurePlay
                             BOOL
(BOOL bLoop);
                             BOOL
                                                          Stop
(void);
                                                          Rewind
                             BOOL
(void);
```

```
Forward
                            BOOL
(void);
                            BOOL
                            FrameForward (void);
                            BOOL
                            FrameBack (void);
                            int
                            GetWidth (void);
                            int
                            GetHeight (void);
                            DWORD
                            GetLength (void);
                            DWORD
                            GetPosition (void);
                            DWORD
                                                         GetSpeed
(void);
                            CString GetErrorString (void);
                            BOOL
                                                         Center
(void);
                            BOOL
                                                         Full
(void);
                            BOOL
                            InstallXioModule(void);
                            BOOL
                            RemoveXioModule(void);
                            void
                            GetFile(char* pszFile);
private:
};
#ifndef PLGWND H
#define PLGWND H
#include "npapi.h"
#include "stdafx.h"
/ ////////
#define ID_VIDEO_PLAY
                              1000
#define ID VIDEO STOP
                              1001
#define ID VIDEO REWIND
                              1002
#define ID VIDEO FORWARD
                              1003
#define ID_VIDEO_FRAME_BACK
                              1004
#define ID VIDEO FRAME FORWARD
                              1005
class CPluginWindow;
class CHyperCD;
// Instance state information about the plugin.
```

```
Use this
// *Note*:
struct to hold per-instance
                 information that you'll need in the
//
                 various functions in this file.
//
//
typedef struct PluginInstance {
                                             // platform specific
    CPluginWindow *window;
window handle:
    CHyperCD * cHypercd;
                                                              //
see the NPWindow structure in
    BOOL bAutoStart;
                                                                   II
                                 NPAPI.H for the shell window
structure
    BOOL bLoop;
    char InformationField[128];
    uint16 mode;
    uint16
                     fMode;
} PluginInstance;
// CPluginWindow:
//
class CPluginWindow : public CWnd
protected:
    PluginInstance * m data;
    CWnd * m_videoWnd;
public:
                               CPluginWindow();
    void StoreData(PluginInstance *);
    virtual WNDPROC* GetSuperWndProcAddr();
                               //{{AFX_MSG( CMainWindow )
                               afx msg void OnPaint();
                               afx msg void OnPaletteChanged(CWnd*
pWnd);
                               afx msg void OnLButtonDown (UINT flags,
CPoint point);
    afx_msg void OnRButtonDown(UINT flags, CPoint point);
    afx msg void OnPlay();
    afx msg void OnStop();
    afx msg void OnRewind();
    afx msg void OnForward();
    afx msg void OnFrameBack();
    afx msg void OnFrameForward();
                               //}}AFX MSG
                               DECLARE MESSAGE MAP()
};
#endif
// stdafx.h : include file for standard system include files,
```

COPYRIGHT - 1997 PLANET GRAPHICS

WHAT I CLAIM IS:

- **CLAIM 1.** A method of transmitting video and/or graphic data files over the Internet or Intranet from a Web site, comprising:
- (a) encrypting the video and/or graphic data and storing it at a Web site associated with a server;
- (b) encrypting a video player and storing it at the Web site;
- (c) downloading the encrypted video and/or graphic data and encrypted video player of said steps (a) and (b) to a requesting computer via the Internet or Intranet;
- (d) prior to said step (c), requesting the downloading of said encrypted video and/or graphic data and encrypted video player by the requesting computer;
- (e) decrypting the video and/or graphic data and video player at the requesting computer; and
- (f) playing back the decrypted video and/or graphic data via the decrypted video player.
- CLAIM 2. A method of playing encrypted video and/or graphic data transmitted over the Internet or Intranet from a Web site, comprising:
- (a) requesting by an end user's computer the downloading of encrypted video and/or graphic data and an encrypted video player from a Web site of the Internet or Intranet;
- (b) receiving the requested encrypted video and/or graphic data and an encrypted video player from the Web site of the Internet or Intranet;

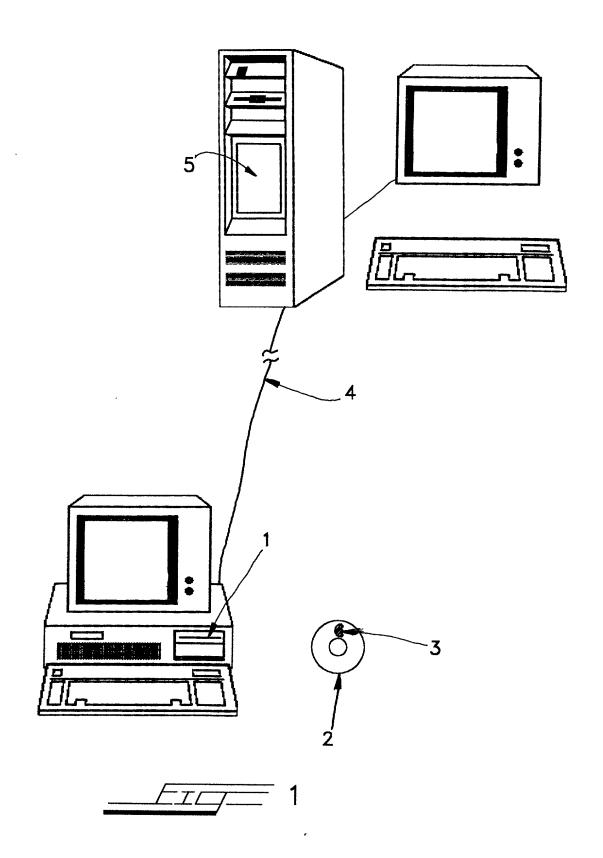
- (c) decrypting the encrypted video and/or graphic data and encrypted video player at the requesting computer; and
- (f) playing back the decrypted video and/or graphic data via the decrypted video player at the end user's computer.
- **CLAIM 3.** A method of preventing unauthorized use of video and/or graphic data, comprising:
 - (a) encrypting the video and/or graphic data;
 - (b) encrypting a video player;
- (c) storing at least one of the encrypted video and encrypted ed player of said steps (a) and (b) at a Web site of the Internet or Intranet;
- (d) downloading at least one of the encrypted video and encrypted video player of said steps (a) and (b) to a requesting computer via the Internet or Intranet;
- (e) decrypting the encrypted video and/or graphic data and encrypted video player at the requesting computerl; and
- (f) playing the decrypted video and/or graphic at the requesting computer via the decrypted player.
- CLAIM 4. The method of preventing unauthorized use of video and/or graphic data according to claim 3, wherein said step (c) comprises storing both the encrypted video and encrypted player of said steps (a) and (b) at the Web site of the Internet or Intranet.
- CLAIM 5. The method of preventing unauthorized use of video

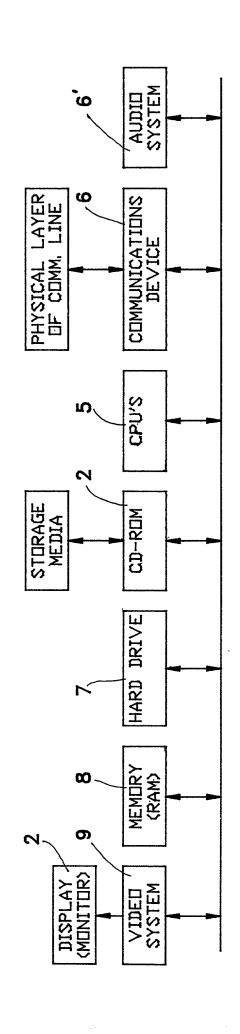
and/or graphic data according to claim 3, wherein said step (c) comprises storing the encrypted player of said step (b) at the Web site of the Internet or Intranet, said step (d) comprising transmitting the encrypted player to the requesting computer.

- CLAIM 6. The method of preventing unauthorized use of video and/or graphic data, according to claim 5, wherein said step (a) comprises storing the encrypted video files at a requesting enduser's computer.
- CLAIM 7. The method of preventing unauthorized use of video and/or graphic data, according to claim 3, wherein said step (c) comprises storing the encrypted video and/or graphic data of said step (a) at the Web site of the Internet or Intranet, said step (d) comprising transmitting the encrypted video and/or graphic data to the requesting computer.
- **CLAIM 8.** The method of preventing unauthorized use of video and/or graphic data, according to claim 7, wherein said step (b) comprises storing the encrypted player at a requesting end-user's computer.

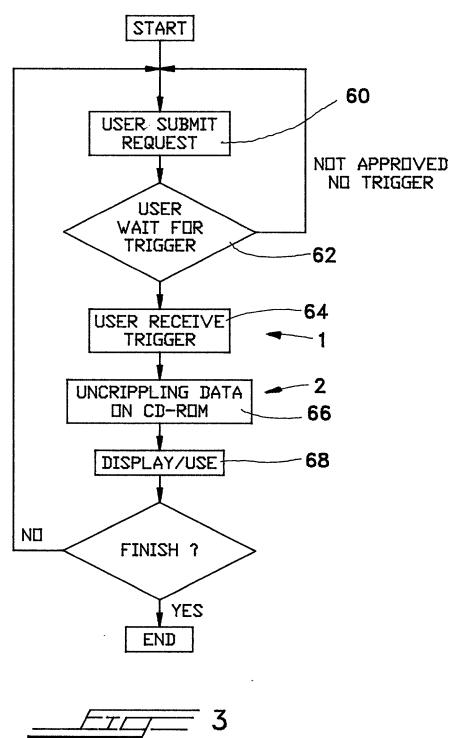
ABSTRACT OF THE DISCLOSURE

A method of transmitting protected video and/or graphic data over the Internet from a Web site, by encrypting the video and/or graphic data and storing it at a Web site associated with a server, and by encrypting a video player and storing it at the Web site. Both are then downloaded to a requesting computer via the Internet or Intranet. The requesting computer decrypts the video and/or graphic data and video player via a previously supplied decryption key, so that the video may be played back by the decrypted player.

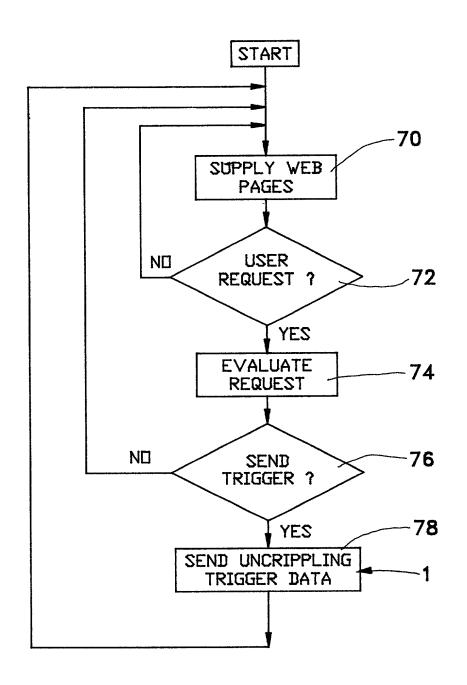




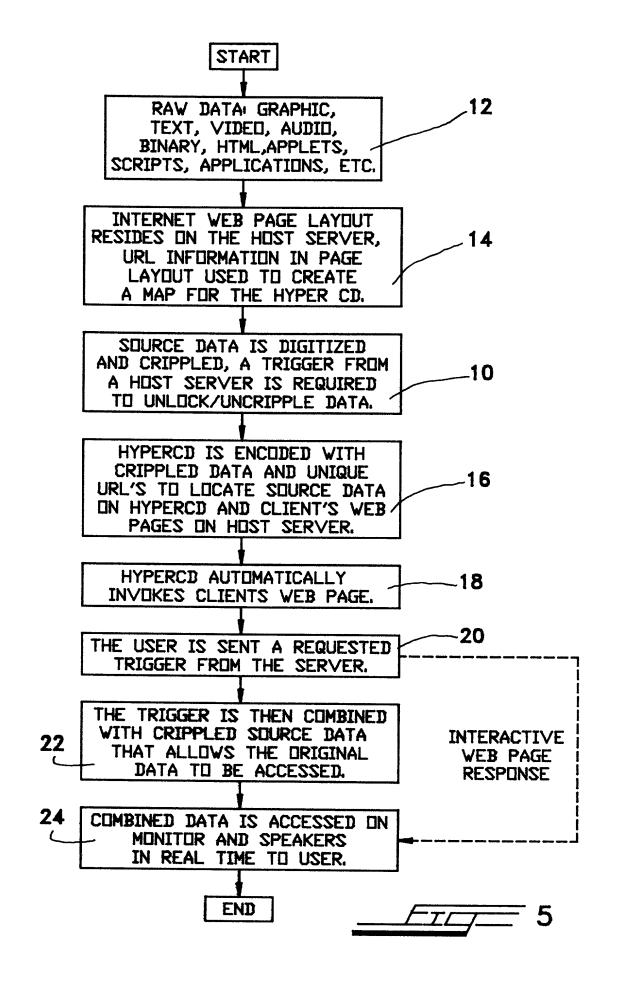


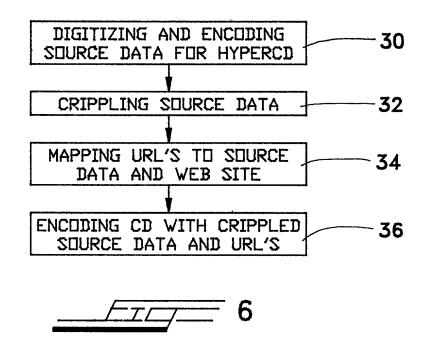


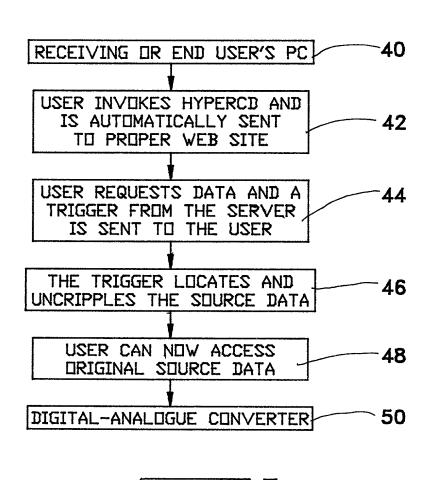


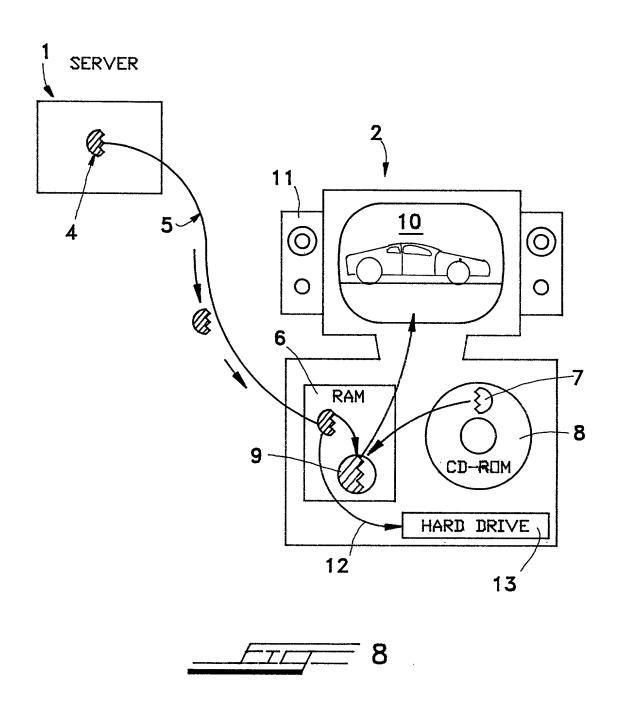


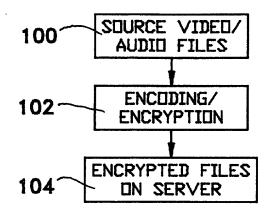


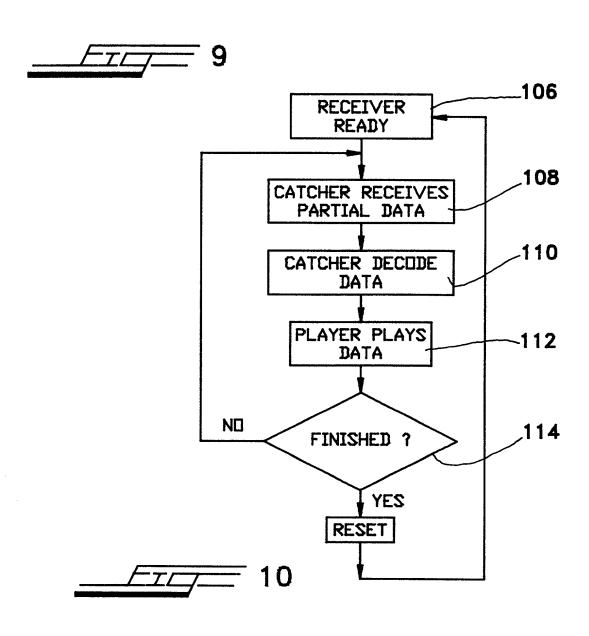


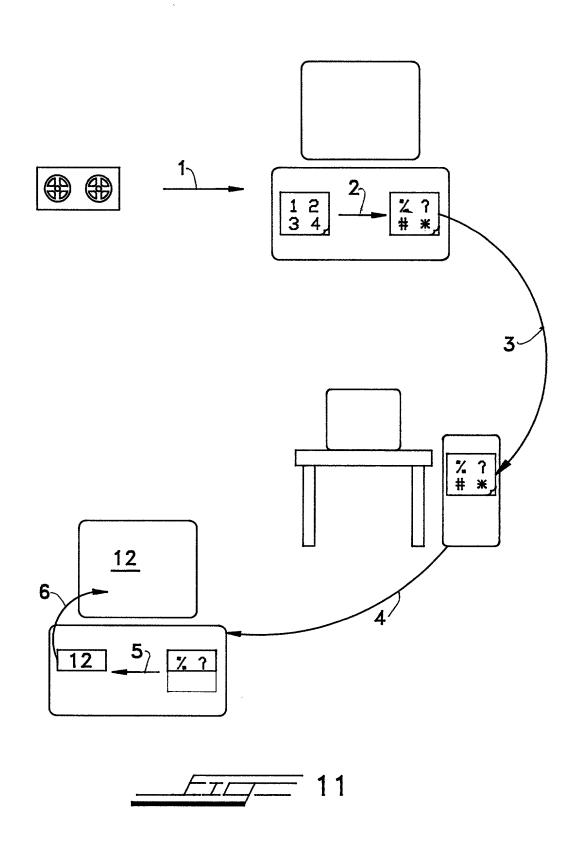


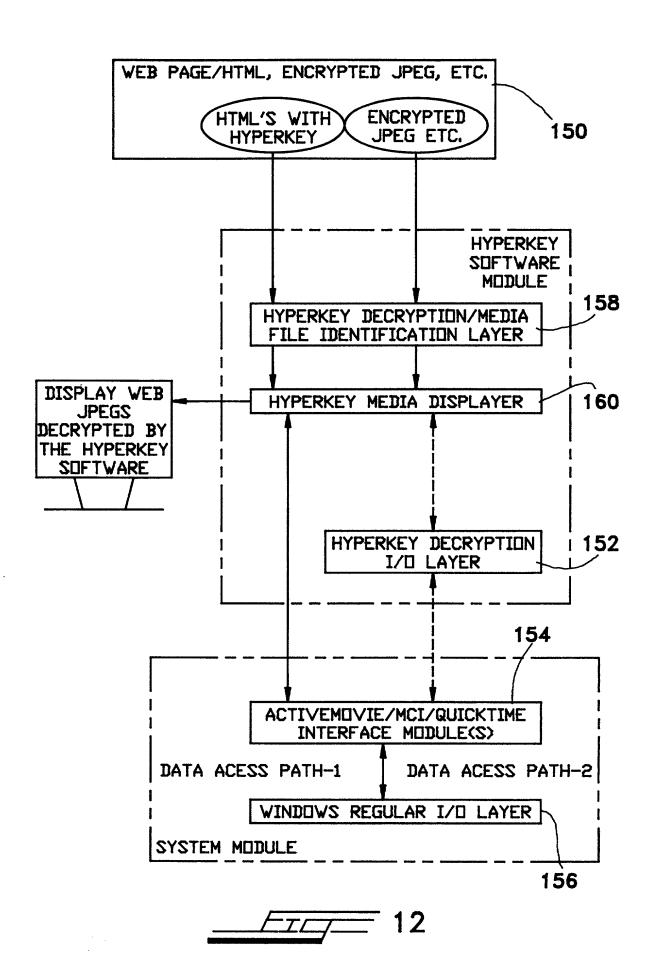












DECLARATION and POWER OF ATTORNEY FOR PATENT APPLICATION English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled METHOD OF SECURE SERVER CONTROL OF LOCAL MEDIA

VIA A TRIGGER THROUGH A NETWORK FOR INSTANT LOCAL ACCESS

OF ENCRYPTED DATA ON AN INTERNET WEBPAGE			
the specification of which			
(check one)			
is attached hereto.			
was filed on $\frac{\text{June }10,\ 1997}{\text{June }10}$			
Application Serial No. 08/872,082			
and was amended on			
(if applicable)			

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by an amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

ENGLISH LANGUAGE DECLARATION

Prior Forei	gn Applicat:	ion(s)		Priori	ty Claimed
(Number)	(Country)	(Day/Month	n/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month	n/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month	n/Year Filed)	Yes	No
as the subj is not disc manner provi Code § 11: information § 1.56(a) w	nited State ect matter losed in the ded by the 2, I acknow as defined hich occurr and the nat	efit under Title 39 as application(s) 1 of each of the classe prior United Start paragraph of owledge the duty in Title 37, Code sed between the fictional or PCT interpolars.	isted beaims of ates appointed to die of Fede	clow and this application of the control of the con	, insofar plication on in the ed States material ulations,
08/792,092		January 31, 199	97	Pending	
08/568,631	***	December 7, 199)5	Pendin	ıg
(Application Serial	No.)	(Filing Date)	(Status)	
08/756,162		November 25,199)7 ^{(papent}	fd;ingding,	abandoned)
(Application Serial	No.)	(Filing Date)	(Status)	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any issued thereon.

(patented, pending, abandoned)

ENGLISH LANGUAGE DECLARATION

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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FULL NAME OF SECOND JOINT INVENTOR, IF ANY JIE FENG	
INVENTOR'S SIGNATURE	DATE
RESIDENCE	11/7/97
1414 Elmwood, Evanston, Illinois 60201	1210 Manor Drive Wilmette, 126091
CITIZENSHIP	Williame, 12 000 //
China	
POST OFFICE ADDRESS	
Same as above.	